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ABSTRACT

This curriculum guide to teaching secondary students about Acquired Immune Deficiency Syndrome (AIDS) using an interdisciplinary approach includes lessons that are meant to supplement the existing curriculum, but may be used to supplant existing lessons. Most of the lessons employ the investigative approach to learning and require student involvement. The curriculum includes lessons from the following content areas: computers and related technologies (8 lessons on graphics, databases, word processing, publishing, and videodiscs); language arts (10 lessons on short stories, speech, dramatic reading, advertising, note taking, debate, and other topics); mathematics (13 lessons on graphs, percents, matrix equations, ratios, and other topics); science (10 lessons on virus/infection, transmission, immune system, prevention, medical advances, epidemics, terminology, and sexually transmitted diseases); and social studies (13 lessons on debating, epidemics, geography, sociology, Bill of Rights, current events, history, economics, and peer pressure). Each lesson includes an objective, a list of resource materials, and a list of activities and culminating activities. Other materials include suggestions for student projects, an AIDS pretest, blackline masters for student handouts, a glossary, and a list of resources. (JDD)

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# AIDS

## An Inter-Disciplinary Secondary Curriculum Supplement

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# An Inter-Disciplinary Secondary AIDS Curriculum Supplement

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# INTRODUCTION



The following lessons are meant to be a supplement to the existing curriculum. However, they have been written in such a way to also supplant existing lessons. Educators are encouraged to modify lessons to fit the needs of their learners, their personal teaching styles and their community. Since information updates occur on a very frequent basis, statistical information and dated material have been intentionally avoided. This information is readily available through sources listed in the back of this guide.

The attitudes and perceptions of AIDS and education about AIDS vary significantly among members of our society. The support materials for these lessons include a valuable, broad-based collection of information and articles about all aspects of AIDS. Recognizing the potential sensitivity that accompanies any information about AIDS, teachers are advised to review thoughtfully and consider carefully the content of the materials. A valid awareness of the materials will help the teacher anticipate student questions and concerns, and heightens the teacher's capacity to respond appropriately and responsibly.

Most lessons employ the investigative approach to learning. This is partly due to the fact that the AIDS issue is constantly changing. What is true today may not be true tomorrow. It is also true that people learn better by doing. Several lessons require active student involvement. We know that time is always in short supply in the present school setting. However, it is time well spent if the information has an impact on the learners' behavior.

We wish to extend our gratitude to the educators who gave of their time and talent in the preparation of this supplement. Without their expertise and dedication this project could not have been accomplished.

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# Computers and Related Technologies

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| 4 | Extra! Extra! Read All About It! | Publishing | 9 |
| 5 | Timeline: Putting AIDS in Perspective | Utility Tool | 10 |
| 6 | ABC News on AIDS | Videodisc | 12 |
| 7 | The "Cool" Thing | Videodisc | 13 |
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# LESSON 1

**Focus:** Graphics

**Title:** Avoiding the Spread of AIDS

**Objective:**

To create a poster on the topic "Avoiding the Spread of AIDS," using desktop publishing and graphic programs.

**Lesson Materials:**

Desktop publishing program such as **Publish It III** or
Graphics program such as **The New Print Shop**
Markers or paint (optional)

**Resource Materials:**

Magazine or newspaper articles
Books
Health agency pamphlets

**Activities:**

1. Allow time for a tutorial if students have not yet used the program.
2. Have students gather ideas about AIDS from the resource materials.
3. Have students work in pairs or small groups to design a poster on AIDS safety. If color graphics are not available students may want to use markers or paint to enhance their design.

**Culminating Activity:**

Print posters and display on a hallway bulletin board or in the classroom.

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# LESSON 2

**Focus:** Database

**Title:** Writing a Bibliography

**Objective:**

To use a database to store bibliographical information for papers or speeches.

**Lesson Materials:**

Database software—preferably an integrated program such as **Microsoft Works** or **AppleWorks** (this lesson can then be linked with a word processing lesson)

**Resource Materials:**

Books on AIDS
Periodicals
Library
Health agency pamphlets

**Activities:**

1. Have students investigate the topic of AIDS.
2. Have students take notes on index cards (this could also be done as a hypercard stack).
3. Provide instruction on setting up fields for students not familiar with databases.
4. Have students create a database to store bibliographical information for each note card.
5. Have students create a report listing all publications in alphabetical order.
6. Have students create a report listing information pertinent to a bibliography with respect to a certain aspect of AIDS. (i.e. costs, US statistics, etc.)

**Culminating Activity:**

Save the information and merge into a word processor document as a bibliography.



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# LESSON 3

**Focus:** Word Processing

**Title:** Researching AIDS

**Objective:**

To create a report using a word processing document.

**Lesson Materials:**

Word processing program such as **AppleWorks**, **Microsoft Works** or **Bankstreet Writer**
Database from lesson 2

**Resource Materials:**

Books
Periodicals
Health agency pamphlets
Library

**Activities:**

Have students:

1. Investigate the subject of AIDS.
2. Use also the notes compiled from lesson 2's database activity.
3. Write a rough draft, using a word processing program, and run a spell check if the program is equipped or a separate program is available.
4. Proofread first drafts for typographical errors.
5. Make corrections and changes to "clean-up" their work.
6. Merge the bibliography information from lesson 2 into the word processor document.

**Culminating Activities:**

1. Have students turn in both the rough draft and final draft of their report.

# LESSON 4

**Focus:** Desktop Publishing

**Title:** Extra! Extra! Read All About It!

**Objective:**

To publish a special issue newsletter about AIDS, using a desktop publishing program.

**Lesson Materials:**

Word processing program such as **AppleWorks, Microsoft Works** or **Bankstreet Writer**.
Desktop publishing program such as **Publish It III, Express Publisher**, etc.
Graphics program, if the desktop publishing program does not have one built in.

**Note:**

If your class or school already has a newspaper or newsletter in place, make this a special "extra" issue or use as a one time class project. The instructor will be the "publisher" with full editorial rights.

**Activities:**

1. Assign jobs to students—reporters, editors, cartoonists, etc.
2. Inform students that this is a special issue about AIDS.
3. Have students pursue different stories such as an interview with a local health official about what teenagers need to know about AIDS, a question and answer column, a story on local school policy about students or teachers with AIDS, etc.

**Culminating Activities**

1. Have students lay out articles and cartoons, etc. using the desktop publishing program.
2. Have students proofread and critique the final layout before editing and printing.



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# LESSON 5

**Focus:** Utility Tool

**Title:** Timeline: Putting AIDS in Perspective

**Cross Reference:**
Social Studies, Lesson 9

**Objective:**
To create a timeline that relates significant events in the AIDS pandemic with historical world events and events in the student's personal life.

**Lesson Materials:**
Blackline Master: History of HIV/AIDS Epidemic-USA
**Timeliner** (computer program) Tom Snyder Productions

**Resource Materials:**
World Almanac
Chronicle of the 20th Century
Facts on File
Encyclopedia Year Books

**Activities:**
Have students:
1. Work in teams of two or three.
2. Read *History of HIV/AIDS Epidemic-USA.*
3. [illegible]d major events in United States and world history that coincide with major milestones in the AIDS crisis.
4. Make a list of events in their own lives that correspond to the dates of the other two lists.

**Culminating Activities:**
1. Using **Timeliner** have each group create a timeline combining the three lists.

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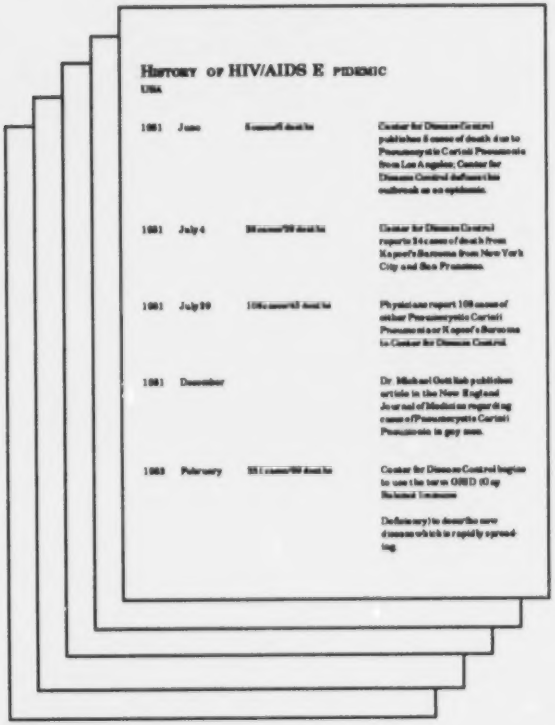
**Blackline masters for lesson #5—found on pages 99-103**



HISTORY OF HIV/AIDS EPIDEMIC
USA

1981 June — Center for Disease Control published 5 cases of death due to Pneumocystis Carinii Pneumonia from Los Angeles; Center for Disease Control defines this outbreak as an epidemic.

1981 July 4 — Center for Disease Control reports 34 cases of death from Kaposi's Sarcoma from New York City and San Francisco.

1981 July 29 — Physicians report 108 cases of either Pneumocystis Carinii Pneumonia or Kaposi's Sarcoma to Center for Disease Control.

1981 December — Dr. Michael Gottlieb publishes article in the New England Journal of Medicine regarding cause of Pneumocystis Carinii Pneumonia in gay men.

1983 February — Center for Disease Control begins to use the term GRID (Gay Related Immune

Deficiency) to describe new disease which is rapidly spreading

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# LESSON 6

**Focus:** Videodisc

**Title:** ABC News on AIDS

**Objective:**

To create a mini-documentary about AIDS using a Macintosh computer, Hypercard and ABC News Interactive videodisc.

**Lesson Materials:**

Macintosh computer with hard drive
Videodisc player
ABC News Interactive videodisc "Health: Aids"
Software accompanying videodisc

**Activities:**

1. If time allows, have students assist in setting up the videodisc player and computer.
2. Use the hands-on tour provided with the videodisc to acquaint students with the video and how the videodisc and computer interact.
3. Discuss how the computer can be used with the videodisc to create a presentation such as a news documentary.
4. Divide students into groups to create mini-documentaries.
5. Provide each group with a focus, such as "The Effects of AIDS on the Human Body," or "Social Aspects of AIDS."

**Culminating Activities:**

1. Provide each group with the opportunity to present their finished product to the class.

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# LESSON 7

**Focus:** Videodisc

**Title:** The "Cool" Thing

**Cross Reference:**
Social Studies, Lesson 13

**Objective:**
To identify risk-reduction techniques.

**Lesson Materials:**
Videodisc player
ABC News Interactive videodisc "Health: AIDS"

**Activities:**
1. Conduct a class discussion about what it means and what is required to be "cool."
2. View Chapters 3 and 4 on side two of the videodisc.
3. Discuss how Ryan and Allison are like or unlike kids in your school.
4. Ask students if they think Ryan or Allison would be considered "cool" in your school. Why or why not?
5. View frames 27877-30757 on side two of the videodisc.
6. Use the questions on page 101 of the videodisc guidebook for discussion.

**Culminating Activities:**
1. Ask students to make a list of comebacks when pressured by peers to do dangerous things to be "cool."



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# LESSON 8

**Focus:** Videodisc

**Title:** The AIDS Invasion

**Cross Reference:**
Science, Lesson 3

**Objective:**
To draw a representation of the AIDS virus attacking and destroying the immune system.

**Lesson Materials:**
ABC News Interactive Videodisc "Health: AIDS"
Videodisc Player
Drawing paper/poster board
Beads
Papier mache'
Glue
Pencils, Markers

**Resource Materials:**
Magazine articles
Biology book
Health agency pamphlets
Library

**Activities:**
1. Prepare students for this lesson by presenting a lesson on the immune system and how it functions.
2. View Chapter 4 on side one of the videodisc. Use questions on page 73 of the videodisc guidebook for discussion purposes.
3. Discuss methods for illustrating the effect of HIV in the blood stream.

**Culminating Activities:**
1. Have students illustrate the effect of the AIDS virus on the human immune system.


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# Language Arts
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# LESSON 1

**Focus:** Short Story

**Title:** Too Close to the Truth

**Objective:**
To write a short story using fictitious characters and AIDS as a subject.

**Lesson Materials:**
Writing materials

**Resource Materials:**
Research materials (i.e., magazines, books, newspapers, etc.) on AIDS victims and AIDS related subjects

**Activities:**
1. Allow time for students to research the topic of AIDS.
2. As a class or in small groups, discuss reactions and facts about AIDS.

**Culminating Activities:**
1. Have students write a short story. The story should be fictitious and deal with some facet of AIDS.

# LESSON 2

**Focus:** Speech

**Title:** What Would You Say if I Told You. . .

**Objective:**

To research, organize and deliver a speech intended to persuade the audience about some aspect of AIDS.

**Lesson Materials:**

Blackline Master: Speech Topic Suggestions
Blackline Master: Speech Evaluation Forms

**Resource Materials:**

Use the library or bring in magazine and newspaper articles, pamphlets and books on the subject of AIDS.

**Activities:**

1. Allow time for students to read about AIDS.
2. As a class, brainstorm situations related to AIDS. (See *Speech Topic Suggestions*) Add suggestions from the class.
3. Have students choose a topic or assign topics.
4. In small groups, brainstorm each member's topic and give suggestions for the speeches.
5. Allow time for additional research.
6. Discuss the *Speech Evaluation Form* and how it should be used.

**Culminating Activities:**

1. Have students present speeches to the class. Have the class evaluate each speech using the *Speech Evaluation Form*.



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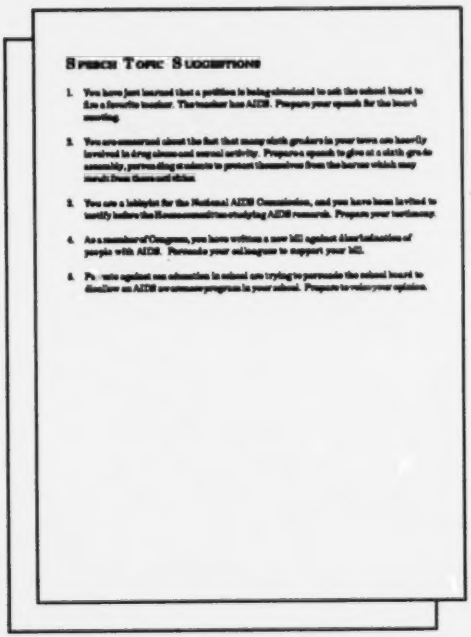
## Blackline masters for lesson #2— found on page 115



**SPEECH TOPIC SUGGESTIONS**

1. You have just learned that a petition is being circulated to ask the school board to fire a favorite teacher. The teacher has AIDS. Prepare your speech for the board meeting.
2. You are concerned about the fact that many sixth graders in your town are heavily involved in drug abuse and sexual activity. Prepare a speech to give at a sixth grade assembly, persuading students to protect themselves from the horrors which may result from these evil ways.
3. You are a lobbyist for the National AIDS Commission, and you have been invited to testify before the Homosexuality-studying AIDS research. Prepare your testimony.
4. As a member of Congress, you have written a new bill against discrimination of people with AIDS. Persuade your colleagues to support your bill.
5. Parents against sex education in school are trying to persuade the school board to disallow an AIDS awareness program in your school. Prepare to voice your opinion.

# LESSON 3

**Focus:** Dramatic Reading

**Title:** Coffeehouse Project

**Objective:**
To present and analyze a poem about AIDS.

**Lesson Materials:**
Blackline Master: Poetry Topic Suggestions
Blackline Master: Poetry Evaluation Forms

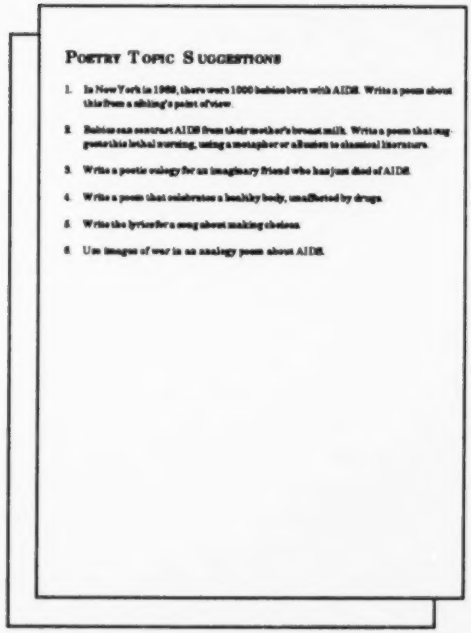
**Resource Materials:**
Magazines, newspaper articles, books, etc. containing AIDS information and stories

**Activities:**
Have students:
1. Locate or write poems related to AIDS, death, compassion and faith. (See *Poetry Topic Suggestions)*
2. Exchange papers and evaluate using the *Poetry Evaluation Form.*
3. Revise poems, if original, and write a brief introduction.
4. Select appropriate background music or set the poem to music, perhaps with the help of a friend.
5. Practice the presentation.

**Culminating Activities:**
1. Arrange for a coffeehouse setting in a local cafe, a gym or the classroom. Decorate with candles in bottles and tie-dyed table cloths, etc. Set up coffee pots with plenty of cream and sugar available.
2. Advertise or invite students, teachers, families, friends or community members to a "Coffeehouse Event".

*Note:* A jar for a free will offering for AIDS research could be set up at the door.

**Blackline masters for lesson #3—**
**found on pages 108 and 109**



POETRY TOPIC SUGGESTIONS

1. In New York in 1988, there were 1000 babies born with AIDS. Write a poem about this from a sibling's point of view.
2. Babies can contract AIDS from their mother's breast milk. Write a poem that suggests this lethal warning, using a metaphor or allusion to classical literature.
3. Write a poetic eulogy for an imaginary friend who has just died of AIDS.
4. Write a poem that celebrates a healthy body, unaffected by drugs.
5. Write the lyrics for a song about making choices.
6. Use images of war in an analogy poem about AIDS.

# LESSON 4

**Focus:** Report

**Title:** A Study of Mass Hysteria

**Cross Reference:**
Social Studies, Lesson 12

**Objective:**
To present a report on mob psychology and mass hysteria.

**Lesson Materials:**
Blackline Master: Problem Analysis Form
Blackline Master: Values Clarification Exercise
Blackline Master: Peer Editing Form

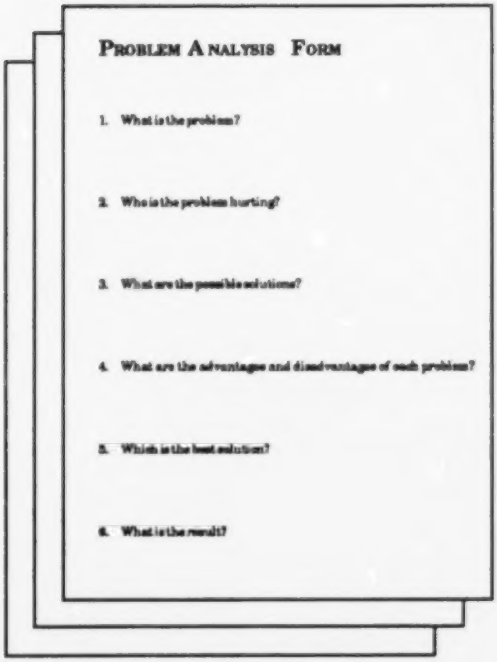
**Resource Materials:**
*The Crucible* — by Arthur Miller
*The Ryan White Story* — Video (Available free from the Department of Education and Cultural Affairs-send a blank tape)

**Activities:**
Have students:
1. Complete group research on:
   a. Salem Witch Trials
   b. McCarthyism
   c. Mob Psychology
   d. AFRAIDS (Acute Fear Regarding AIDS)
   e. The 1939 *War of the Worlds* Broadcast
2. Present findings as a series of panel discussions.
3. Act out or read Arthur Miller's *The Crucible.*
4. Discuss the decisions made by the following: John Proctor, Elizabeth Proctor, Abigail Williams, Reverend Parris, Deputy Governor Danforth, Mary Warren and Reverend Hale.
5. Analyze each of these decisions using the *Problem Analysis Form.*
6. Complete the values clarification exercise in small groups. Have one person act as recorder and report to the class.

**Culminating Activities:**

1. Have students write an essay comparing and contrasting the hysteria in the play with that presented by the panels earlier. Have classmates edit rough drafts for each other using the *Peer Editing Form*.

**Blackline masters for lesson #4—**
**found on pages 106, 110, and 118**


PROBLEM ANALYSIS FORM
1. What is the problem?
2. Who is the problem hurting?
3. What are the possible solutions?
4. What are the advantages and disadvantages of each problem?
5. Which is the best solution?
6. What is the result?

# LESSON 5

**Focus:** Role Playing

**Title:** Assuming a New Persona

**Objective:**
To investigate, role-play and write a creative letter using an assumed persona.

**Lesson Materials:**
Blackline Master: Persona to Persona Suggestions

**Resource Materials:**
Magazines, books and pamphlets about AIDS or people with AIDS.

**Activities:**
Have students:
1. Select a persona from the *Persona to Persona* suggestions.
2. Allow time for students to research the subject of AIDS or assign as homework.
3. Discuss the following in small groups:
   a. The issues with which your persona is dealing.
   b. His or her probable relationship with the correspondent.
   c. The possible physical and personality characteristics of your persona.
   d. Topics which might be covered in a letter from the sender to the receiver.
4. Discuss the use of tone and the way it varies depending on the audience.
5. Write a letter to the person indicated.
6. Exchange letters from class to class, school to school, student to student, etc.

**Culminating Activities:**
1. Using the same situation, have students write stories, plays or poems which express a theme they have discovered through the "correspondence" they have conducted.

**Blackline master for lesson #5—**
**found on page 107**

### PERSONA TO PERSONA SUGGESTIONS

Teacher's note: personas may be assigned or drawn from slips of paper.

1. From the 14 year old sister of a 20 year old girl who has just tested AIDS positive to a friend.
2. From the teacher of a 15 year old boy who has asked for advice about a girl who is pressuring him to have sex with her (a Ann Landers for the boy)
3. From a 10 year old girl whose friends are urging her to use drugs and alcohol to her 10 year old cousin, with whom she has always had a close relationship.
4. From a young woman whose friend has AIDS, asking what she can do for her friend, to a cousin whose wife died of AIDS last year.
5. From someone who has AIDS, to a person he/she may have infected.

# LESSON 6

**Focus:** Advertising

**Title:** Media Blitz: An Educational Campaign

**Objective:**
To use advertising techniques in developing a campaign for AIDS education.

**Lesson Materials:**
Blackline Master: Ad Analysis Form

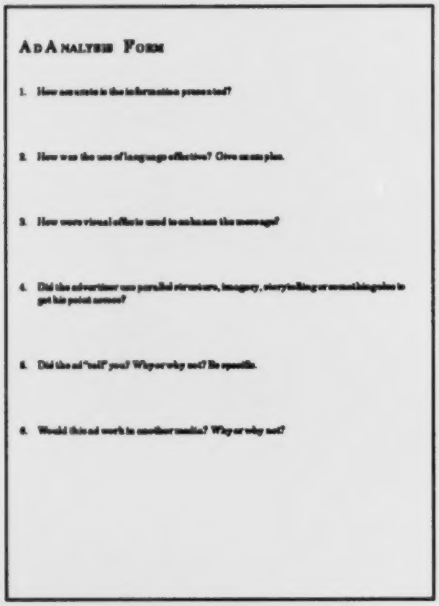
**Resource Materials:**
Ads on AIDS
Filmstrips on advertising
Newspaper and magazine articles
Pamphlets from health agencies
Library

**Activities:**
1. View and analyze ads from various media sources (i.e., TV, magazines, newspaper, radio) using the *Ad Analysis Form*.
2. Invite advertisers and editorial writers to speak to the class about methods of writing and presenting commercials and advertisements.
3. View filmstrips on advertising and the media. Evaluate the methods used.
4. Plan (and execute if you like) a campaign for educating the community about AIDS. Be sure that facts are up to date.
5. Conduct a survey of local attitudes.
   a. Discuss proper survey methods
   b. Select a representative sample
   c. Phrase questions
   d. Distribute survey
   e. Tally findings
   f. Discuss the needs discovered
6. Brainstorm the topic, "Getting the facts out to the children, youth and adults of our area."
7. Divide the class into groups to work in different media areas.

**Culminating Activities:**

1. Write commercials for radio and television, advertisements for newpapers and magazines, speeches for school and public forums and editorials.
2. Design posters and handbills.
3. Arrange for speaking engagements and public service announcements.

**Blackline master for lesson #6—**
**found on page 86**



AD ANALYSIS FORM

1. How accurate is the information presented?
2. How was the use of language effective? Give an example.
3. How were visual effects used to enhance the message?
4. Did the advertiser use parallel structure, imagery, storytelling or something else to get his point across?
5. Did the ad "sell" you? Why or why not? Be specific.
6. Would this ad work in another media? Why or why not?

# LESSON 7

**Focus:** Note Taking

**Title:** Did You Get That?

**Objective:**

To listen or read for main points in a lecture or article and take notes using abbreviations and symbols.

**Lesson Materials:**

Copies of a current article on AIDS.

**Resource Materials:**

Videos (see list of sources)
Magazines, newspapers
Health professional or other informed individual to speak about AIDS.

**Activities:**

1. Review note taking techniques.
2. Have all students take notes from the same article.
3. In small groups, compare notes.
4. Compare notes with the teacher's notes. (Display teacher's notes on a transparency or on the board.)
5. Have students take notes from other print sources of their own choosing.
6. Take notes as a class, using the chalkboard or overhead, on a video about AIDS. Pause the tape as facts are presented and show what to write.
7. Prepare the class for an outside speaker. Have the students practice taking notes as the teacher presents a sample speech.
8. Take notes during guest speaker or panel presentation.
9. Compare notes during a later class meeting.

**Culminating Activities:**

1. Use notes to write letters to the Editor, or Congressmen, etc.

# LESSON 8

**Focus:** Research Paper

**Title:** The Issue is AIDS

**Objective:**

To research a topic, organize ideas and state supporting facts in a clear, concise, written manner.

**Lesson Materials:**

Blackline Master: Research Topics
Blackline Master: Rough Draft Editing Form

**Resource Materials:**

Pamphlets, booklets and videotapes (can be obtained through the South Dakota Department of Health; see *Resources* for more detailed information)

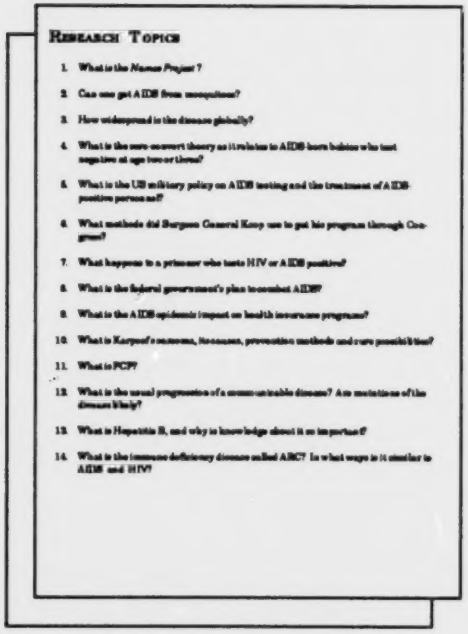
**Activities:**

1. In small groups, discuss AIDS-related issues to draft a list of areas that students want to know more about.
2. Select a question and do research as a group or individual. Take notes on notecards and make a bibliography card for each source.
3. Organize notecards and write a complete sentence outline.
4. Write a rough draft.
5. Have fellow students edit the draft, using the *Rough Draft Editing Form.*

**Culminating Activities:**

1. Rewrite the paper in final form, utilizing the criticisms and suggestions from the *Rough Draft Editing Form.*

**Blackline masters for lesson #8—**
**found on pages 112 and 113**



RESEARCH TOPICS

1. What is the *Names Project*?
2. Can one get AIDS from mosquitoes?
3. How widespread is the disease globally?
4. What is the now-covert theory on Haitians in AIDS born babies who test negative at age two or three?
5. What is the US military policy on AIDS testing and the treatment of AIDS-positive personnel?
6. What methods did Surgeon General Koop use to get his program through Congress?
7. What happens to a prisoner who tests HIV or AIDS positive?
8. What is the federal government's plan to combat AIDS?
9. What is the AIDS epidemic's impact on health insurance programs?
10. What is Kaposi's sarcoma, its causes, prevention methods and cure possibilities?
11. What is PCP?
12. What is the usual progression of a communicable disease? Are mutations of the disease likely?
13. What is Hepatitis B, and why is knowledge about it so important?
14. What is the immune deficiency disease called ARC? In what ways is it similar to AIDS and HIV?

# LESSON 9

**Focus:** Debate

**Title:** Mandatory AIDS Testing

**Cross Reference:**
Social Studies, Lesson 7

**Objective:**
To defend or refute either side of the mandatory AIDS testing issue.

**Resource Materials:**
Pamphlets from health agencies about AIDS
Articles from magazines and newspapers regarding mandatory AIDS testing
Library

**Activities:**
1. As a class, formulate a resolution with regards to mandatory AIDS testing.
2. Pair students into debate teams or group into panels.
3. Allow students time in and out of class to research the subject. Teams should be prepared to debate either side of the issue.
4. Have students keep card files with quotes to substantiate any claims made during the debate.

**Culminating Activities:**
1. An informal debate may be held. Students should be able to argue either side of the issue and back up their arguments with facts.

# LESSON 10

**Focus:** Documentary

**Title:** ABC News on AIDS

**Cross Reference:**
Computers and Related Technologies, Lesson 6

**Objective:**
To create a mini-documentary about AIDS using a Macintosh computer, Hypercard and ABC News InterActive Videodisc.

**Lesson Materials:**
Macintosh computer with hard drive
Videodisc player
ABC News Interactive videodisc "Health: Aids"
Software accompanying videodisc

**Activities:**
1. If time allows, have students assist in setting up the videodisc player and computer.
2. Use the hands-on tour provided with the videodisc to acquaint students with the video and how the videodisc and computer interact.
3. Discuss how the computer can be used with the videodisc to create a presentation such as a news documentary.
4. Divide students into groups to create mini-documentaries.
5. Provide each group with a focus, such as "The Effects of AIDS on the Human Body," or "Social Aspects of AIDS."

**Culminating Activities:**
1. Provide each group with the opportunity to present their finished product to the class.

# MATHEMATICS
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# LESSON 1

**Focus:** Bar/Circle Graphs

**Title:** Looking at Statistics

**Cross Reference:**
Science, Lesson 7

**Objective:**
To illustrate AIDS statistics using bar and circle graphs.

**Resource Materials:**
AIDS Statistics (See *Resources* to obtain current statistical information.)

**Note:**
Current statistics are important to give the lesson relevance to the learner. Please take the time to call for the information needed in this lesson.

**Activities:**
1. Prepare students for this activity by presenting a lesson on percentages. The students should also know how to construct angles using a protractor.
2. Begin by discussing how to read a bar graph and circle graph.
3. Explain how graphs make statistical information easier to understand.
4. Have students suggest information that could be put in graph form.
5. Using AIDS statistics, have students create a circle graph depicting the High Risk categories of those people diagnosed with AIDS.
6. Have students create bar graphs using AIDS cases broken down by age group and exposure category, age group and race.

**Culminating Activities:**
1. Discuss the information depicted by the different graphs.
2. Discuss how one type of graph is better than another type at depicting certain kinds of information.

# LESSON 2

**Focus:** Percent Comparison

**Title:** Over the Years

**Objective:**

To compute the percentage of increase or decrease in the number of new AIDS cases since the previous year.

**Resource Materials:**

Most recent statistics on the number of new AIDS cases broken down by gender and exposure category. Obtain also the previous year's statistics on the number of new cases. (See *Resources* to obtain statistics.)

**Note:**

Current statistics are important to give the lesson relevance to the learner. Please take the time to call for the information needed in this lesson.

**Activities:**

1. Discuss using percentage increases and decreases.
2. Explain calculating procedures for percentage increases and decreases.
3. Have students compare the number of new cases between the two years.
4. Have students calculate the percentage increase or decrease for each category.
5. Check the accuracy of the calculations.

**Culminating Activities:**

1. Discuss what the percentages tell you that is not readily apparent when comparing just the number of cases.

# LESSON 3

**Focus:** Percent Calculation

**Title:** AIDS Exposure

**Objective:**

To calculate the percentage of each exposure category in all AIDS cases.

**Resource Materials:**

Number of AIDS cases broken down into exposure categories. (See *Resources* to obtain current statistics.)

**Note:**

Current statistics are important to give the lesson relevance to the learner. Please take the time to call for the information needed in this lesson.

**Activities:**

1. Discuss how percentages are used.
2. Explain how to compute percent of a whole.
3. Discuss how the number of cases in each exposure category add up to the total.
4. Have students find the percent of each exposure category in all AIDS cases.
5. Check computations for accuracy.

**Culminating Activities:**

1. Discuss what the percentages tell you that is not readily apparent when looking at the numbers in each category.

# LESSON 4

**Focus:** Evaluating Function

**Title:** An Educated Estimation

**Objective:**

To use an evaluating function to determine the number of AIDS cases in the United States for specific years.

**Lesson Materials:**

Blackline Master: Evaluating Functions

**Resource Materials:**

Calculators

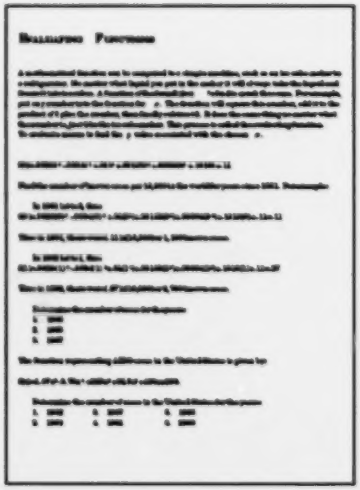
**Activities:**

1. After a preliminary lesson on evaluating functions, have students consider how functions can be used.
2. Distribute the student activity sheets. Have the students evaluate the function for the given data.
3. Check computations for accuracy.

**Culminating Activity:**

1. Discuss what uses could be made of the AIDS function.

**Blackline master for lesson #4— found on page 95**



# LESSON 5

**Focus:** Ordered Pairs

**Title:** AIDS Trends

**Objective:**

To choose the appropriate units for each axis, label each axis accordingly and plot the data points as ordered pairs.

**Lesson Materials:**

Blackline Master: Graphing Ordered Pairs
Graph paper

**Resource Materials:**

Current statistics regarding the number of new AIDS cases for recent years. (See *Resources* to obtain current statistics)

**Note:**

Current statistics are important to give the lesson relevance to the learner. Please take the time to call for the information needed in this lesson.

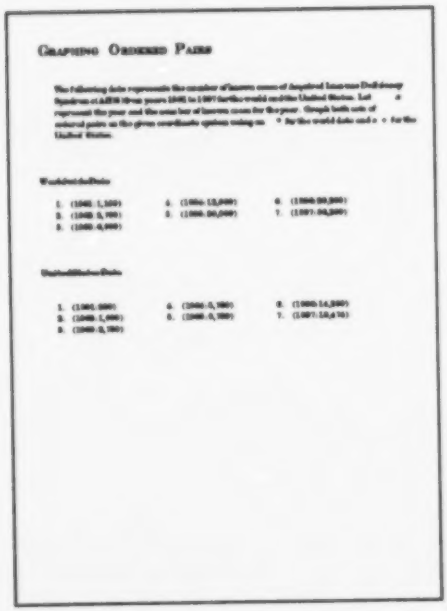
**Activities:**

1. Have students bring in articles on AIDS to share with the class. (You might want to have students play the *Envelope Game* in the appendix.)
2. Distribute the *Graphing Ordered Pairs* activity sheet and graph paper.
3. Have students label each axis properly; choose an appropriate unit for each axis; and graph the ordered pairs from each set using different symbols for each set. For example, use an * for worldwide data points and a + for United States data points.

**Culminating Activities:**

1. Have students compare graphs to determine accuracy.
2. Discuss the following questions:
   a. Does the trend of the increase in AIDS cases in the United States follow the worldwide trend?
   b. Can we predict the number of new cases in years 1991 and 1992? If so, what would they be?
   c. Why would these numbers suddenly decrease?

**Blackline master for lesson #5—**
**found on page 96**



GRAPHING ORDERED PAIRS

The following data represents the number of known cases of Acquired Immune Deficiency Syndrome (AIDS) from years 1981 to 1987 for the world and the United States. Let x represent the year and the ordinal for of known cases for the year. Graph both sets of ordered pairs on the given coordinate system using an * for the world data and a + for the United States.

Worldwide Data

1. (1981, 1,121)
2. (1982, 3,701)
3. (1983, 8,993)
4. (1984, 13,000)
5. (1985, 30,000)
6. (1986, 50,000)
7. (1987, 94,000)

United States Data

1. (1981, 889)
2. (1982, 1,450)
3. (1983, 3,701)
4. (1984, 5,160)
5. (1985, 8,355)
6. (1986, 14,000)
7. (1987, 24,676)

# LESSON 6

**Focus:** Elimination Method

**Title:** Future Predictions

**Objective:**

To solve a system of equations using the Elimination Method.

**Lesson Materials:**

Blackline Master: Graphs and Their Equations

**Activities:**

1. Prepare the students for this activity by presenting a lesson on the Elimination Method (sometimes referred to as the Linear-Combination Method).
2. Distribute the *Graphs and Their Equations* activity sheet.
3. Divide the class into groups of two to four to help eliminate the chance of arithmetic errors. Have students solve the problems using the Elimination Method.

**Culminating Activity:**

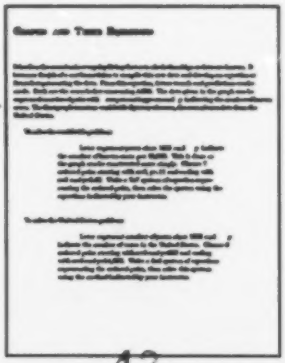
Discuss the following questions:

a. What could be the downfall of developing such an equation?

b. Project how far in the future a trend could be used. Have students support their answers with examples from other instances such as the number of people taking up smoking or the number of people who exercise properly.

c. What could a mathematician do to ensure the equation accurately predicts future trends?

**Blackline master for lesson #6—found on page 96**



# LESSON 7

**Focus:** Cramer's Rule

**Title:** Predicting the Trend

**Objective:**

To solve a system of equations using Cramer's Rule.

**Lesson Materials:**

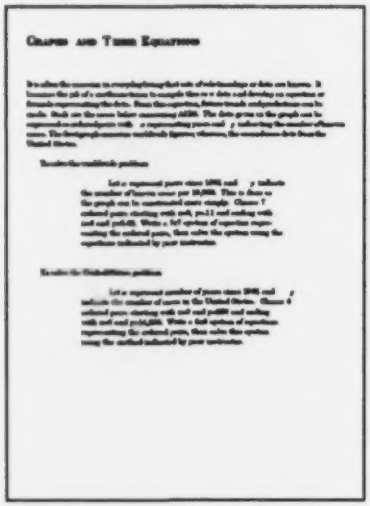
Blackline Master: Graphs and Their Equations

**Activities:**

1. Prepare the students for this activity by presenting a lesson on Cramer's Rule.
2. Distribute the *Graphs and Their Equations* activity sheet.
3. Divide the class into groups of two to four. Have the students solve the problem using Cramer's Rule.

**Culminating Activities:**

1. Discuss the following questions:
   a. How is Cramer's Rule the same as, or different from the Elimination Method?
   b. Why would one method be used over the other?



**Blackline master for lesson #7—found on page 98**

# LESSON 8

**Focus:** Matrix Equations

**Title:** It Would Appear That. . .

**Objective:**

To solve a system of equations using Matrix Equations.

**Lesson Materials:**

Blackline Master: Graphs and Their Equations

**Activities:**

1. Prepare the students for this activity by presenting a lesson on Matrix Equations
2. Distribute the *Graphs and Their Equations* activity sheet.
3. Divide the class into groups of two to four. Have the learners solve the problem using Matrix Equations.

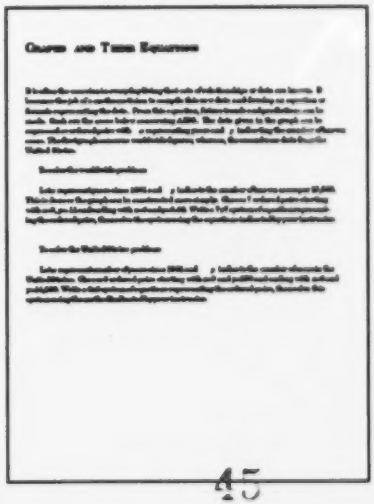
**Culminating Activity:**

Discuss the following questions:

a. What does the equation tell us about the problem of AIDS in the world?

b. What does the equation tell us about the problem of AIDS in the US?

**Blackline master for lesson #8—found on page 96**



# LESSON 9

**Focus:** Ratio

**Title:** A State Comparison

**Objective:**

To write a proportion using ratios and solve a proportion using the means-extreme product theorem.

**Resource Materials:**

SD Department of Health HIV/AIDS Surveillance Report (See *Resources* to obtain a current report.)

**Note:**

Current statistics are important to give the lesson relevance to the learner. Please take the time to call for the information needed in this lesson.

**Activities:**

1. Explain the procedure to solve a proportion.
2. Have students find the current population of the following states: North Dakota, South Dakota, Minnesota, Iowa, Nebraska, Wyoming, Montana, California, Texas, Florida and New York.
3. Using the annual ratio of AIDS cases per 100,000 population given by the surveillance report, have the students set up and solve a proportion to determine the actual number of AIDS cases reported during the past year.
4. Check computations for accuracy.

**Culminating Activities:**

1. Discuss the differences in the number of cases in South Dakota and the surrounding states. Compare these to the numbers in the remaining four states.
2. Discuss reasons for the wide disparity.

# LESSON 10

**Focus:** Rates of Change

**Title:** Indications for the Future

**Objective:**
To calculate the average rate of change and the instantaneous rate of change.

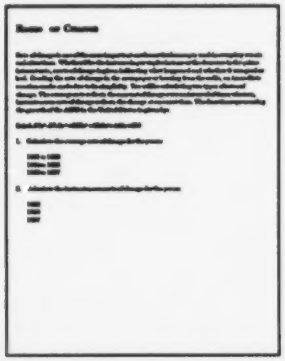
**Lesson Materials:**
Blackline Master: Rates of Change

**Resource Materials:**
Calculators

**Activities:**
1. Prepare students for this activity by presenting a lesson on the average rate of change and the instantaneous rate of change of a function.
2. Distribute the *Rates of Change* activity sheet.
3. Have the students determine the average rate of change for the years 1981 to 1982, 1984 to 1985 and 1986 to 1987.
4. Have the students determine the instantaneous rate of change for the years 1982, 1985 and 1987.
5. Check calculations for accuracy.

**Culminating Activities:**
1. Discuss three reasons why the AIDS virus is increasing or decreasing.
2. In light of the increase or decrease in the rate of change, have the class predict the future trends of AIDS.

**Blackline master for lesson #10—found on page 111**



# LESSON 11

**Focus:** Average Values

**Title:** US and World Comparisons

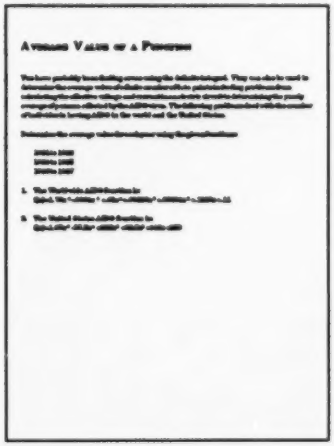
**Objective:**
To determine the average value of a function.

**Lesson Materials:**
Blackline Master: Average Value of a Function

**Resource Materials:**
Calculators

**Activities:**
1. Prepare the students for this activity by presenting a lesson on the average value of a function.
2. Distribute the *Average Value of a Function* activity sheet.
3. Have the students determine the average value for the years listed.
4. Check computations for accuracy.

**Culminating Activity:**
1. Compare the averages from year to year. Compare the United States figures to those of the world.



**Blackline master for lesson #11—found on page 88**

# LESSON 12

**Focus:** Graphing

**Title:** AIDS: The Economics of It All

**Cross Reference:**
Social Studies, Lesson 10

**Objective:**
To graph the financial implications of AIDS on the individual and the community.

**Lesson Materials:**
Poster board
Markers

**Resource Materials:**
Magazine and newspaper articles on the economics of AIDS
US budget in pie graph form
US GNP in pie graph or bar graph form
Library

**Activities:**
1. Have students research the financial cost of AIDS in pairs or groups.
2. Each group should prepare a chart showing where research dollars are going.
3. As a class, discuss what role the federal government plays in funding research and how much of the burden falls on the private sector. Be sure students realize that both sources of funding come from the same place, US citizens.
4. Have each group prepare a chart showing the cost of treatment for one individual with AIDS.
5. As a class, discuss who pays for individual care costs.

**Culminating Activities:**
1. Together create a graph showing the statistics found.
2. Compare this graph with graphs of the federal budget and the gross national product.

# LESSON 13

**Focus:** Using Statistics

**Title:** Kids and AIDS

**Objective:**
To add and subtract using current statistics on pediatric AIDS cases.

**Lesson Materials:**
Blackline Master: Statistics Review

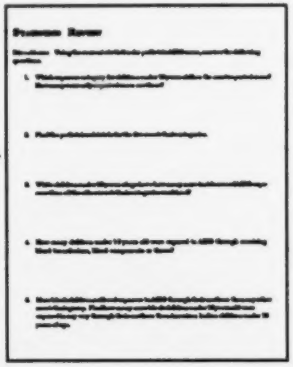
**Resource Materials:**
AIDS statistics (See *Resources* to obtain current statistics.)

**Note:**
Current statistics are important to give the lesson relevance to the learner. Please take the time to call for the information needed in this lesson.

**Activities:**
1. Prepare a blackline master or overhead transparency using statistics on pediatric (under age 13) cases of AIDS in the US Omit all totals and subtotals.
2. Using the *Statistics Review* activity sheet, discuss the categories and the meaning of the numbers.
3. Have students determine the answers to the questions on the activity sheet.
4. Check for accuracy of computations.

**Culminating Activities:**
1. Discuss what the totals communicate to us.

**Blackline master for lesson 13—found on page 116**



# Science
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# LESSON 1

**Focus:** Virus/Infection

**Title:** HIV: The Virus

**Objective:**

To write a group report on the viral causes of AIDS and describe the difference between a virus, a retro-virus and a bacterial infection.

**Resource Materials:**

Books
Magazines articles
Library
Health agency publications

**Activities:**

1. Present a lesson on viral and bacterial infection.
2. Divide the class into groups of 3 or 4.
3. Have groups investigate the AIDS virus, HIV.
4. Explain that AIDS is caused by a special kind of virus, and they are to find out what makes it different from other viruses and bacteria that cause infectious diseases.

**Culminating Activities:**

1. Have each group submit their findings in written form.
2. Discuss the similarities and differences between HIV and other infectious viruses and bacteria. (Compare AIDS to other epidemics like Polio and Small Pox, Bubonic Plague as well as other sexually transmitted diseases.)

# LESSON 2

**Focus:** Transmission

**Title:** Correcting Misconceptions

**Objective:**

To explain how AIDS is and is not transmitted.

**Lesson Materials:**

Blackline Master: Course of Transmission
Drawing paper
Pencils
Markers

**Resource Materials:**

Magazine articles
Health agency pamphlets
Library

**Activities:**

1. Brainstorm as a class how AIDS might be transmitted. List ideas on chalkboard.
2. Have students investigate the subject.
3. Instruct students to divide the list on the board into correct assumptions and incorrect assumptions.
4. Discuss the list the students have compiled. Correct any misconceptions that may still linger.
5. Discuss why some of their original ideas were incorrect.

**Culminating Activities:**

1. Distribute the *Course of Transmission* activity sheet. Explain that the empty boxes on the inside of the uninfected body represent methods of transmission and the empty boxes on the outside of the uninfected body represent points of entrance.

**Answer Sheet for blackline master found on page 95**

## COURSE OF TRANSMISSION

EXPOSED PERSON(S)

BLOOD CONTACT AND/OR SEXUAL CONTACT

INFECTED PERSON

AIDS VIRUS PRESENT IN BODY FLUIDS

TRANSMITTED THROUGH

**ENTRANCE POINTS OF THE AIDS VIRUS**

1. Breaks in skin
2. Penis
3. Vagina
4. Mouth
5. Rectum
6. Mucous Membrane

**EXIT POINTS OF THE AIDS VIRUS**

1. Breaks in skin
2. Penis
3. Vagina
4. Mouth
5. Rectum
6. Mucous Membrane

TO UNINFECTED PERSON(S)

**KNOWN METHODS OF TRANSMISSION**

1. Sexual contact
2. Sharing any needles, especially for drugs
3. Mother to child
4. Blood transfusion before 1986

# LESSON 3

**Focus:** Immune System

**Title:** The AIDS Invasion

**Cross Reference:**
Computers and Related Technologies, Lesson 8

**Objective:**
To draw a representation of the AIDS virus attacking and destroying the immune system.

Lesson Materials:
ABC News Interactive Videodisc "Health: AIDS"
Videodisc Player
Drawing paper/poster board
Beads
Papier mache'
Glue
Pencils
Markers

**Resource Materials:**
Magazine articles
Biology book
Health agency pamphlets
Library

**Activities:**
1. Prepare students for this lesson by presenting a lesson on the immune system and how it functions.
2. View Chapter 4 on side one of the videodisc. Use questions on page 73 of the videodisc guidebook for discussion purposes.
3. Discuss methods for illustrating the effect of HIV in the blood stream.

**Culminating Activities:**
1. Have students illustrate the effect of the AIDS virus on the human immune system.

# LESSON 4

**Focus:** Prevention

**Title:** The Lifestyle Element

**Objective:**

To report on AIDS transmission and lifestyle elements that help to prevent transmission of the virus.

**Lesson Materials:**

Envelopes
Blackline Master: The Envelope Game

**Resource Materials:**

Magazine and newspaper articles
Books
Library

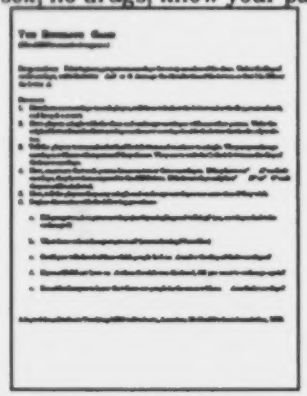
**Activities:**

1. Begin by playing *The Envelope Game.*
2. Have students investigate AIDS transmission.

**Culminating Activities:**

1. Have students report on lifestyles that promote the spread of AIDS.
2. Have students discuss barriers to AIDS. (No sex, no drugs, know your partner, use of condoms, don't share needles, etc.)

**Blackline master found for lesson #4—found on page 117**



# LESSON 5

**Focus:** Prevention

**Title:** A Societal Risk

**Objective:**

To determine what puts people at risk to AIDS.

**Resource Materials:**

Magazine and newspaper article about AIDS
Health agency pamphlets
Books about AIDS
Library

**Activities:**

1. Brainstorm on the different "at-risk" groups that could be victim to AIDS. List also, other aspects of AIDS and how it affects society.
2. Have learners investigate a specific aspect of HIV transmission/infection or AIDS. Topics should be approved by the instructor.

**Culminating Activities:**

1. Have students present their findings to the class if time allows or report their findings in writing.
2. Allow class to ask questions of presenters. If a question cannot be answered have the questioner and presenter do further investigation as a team and report back to the class at a later date.

# LESSON 6

**Focus:** Medical Advances

**Title:** What Hope is There?

**Objective:**

To analyze current research and discuss new advancements in the treatment of AIDS.

**Resource Materials:**

Magazine, newspaper and journal articles on AIDS
Health agency pamphlets
Library

**Activities:**

1. Have students investigate new medical advancements in the treatment of AIDS. Give suggestions on where to find such information, but allow students to obtain information on their own.
2. Divide students into groups for investigation purposes.
3. Discuss the information obtained and the ramifications.

**Culminating Acitivity:**

1. Have students write a summary of the information as they understand it.

# LESSON 7

**Focus:** Bar/Circle Graphs

**Title:** Looking at Statistics

**Cross Reference:**
Mathematics, Lesson 1

**Objective:**
To illustrate AIDS statistics using bar and circle graphs.

**Resource Materials:**
AIDS Statistics (See *Resources* to obtain current statistical information.)

**Note:**
Current statistics are important to give the lesson relevance to the learner. Please take the time to call for the information needed in this lesson.

**Activities:**
1. Prepare students for this activity by presenting a lesson on percentages. The students should also know how to construct angles using a protractor.
2. Begin by discussing how to read a bar graph and circle graph.
3. Explain how graphs make statistical information easier to understand.
4. Have students suggest information that could be put in graph form.
5. Using AIDS statistics, have students create a circle graph depicting the High Risk categories of those people diagnosed with AIDS.
6. Have students create bar graphs using AIDS cases broken down by age group and exposure category, age group and race.

**Culminating Activities:**
1. Discuss the information depicted by the different graphs.
2. Discuss how one type of graph is better than another type at depicting certain kinds of information.

# LESSON 8

**Focus:** Epidemics

**Title:** A Peek at the Past

**Cross Reference:**
Social Studies, Lesson 2

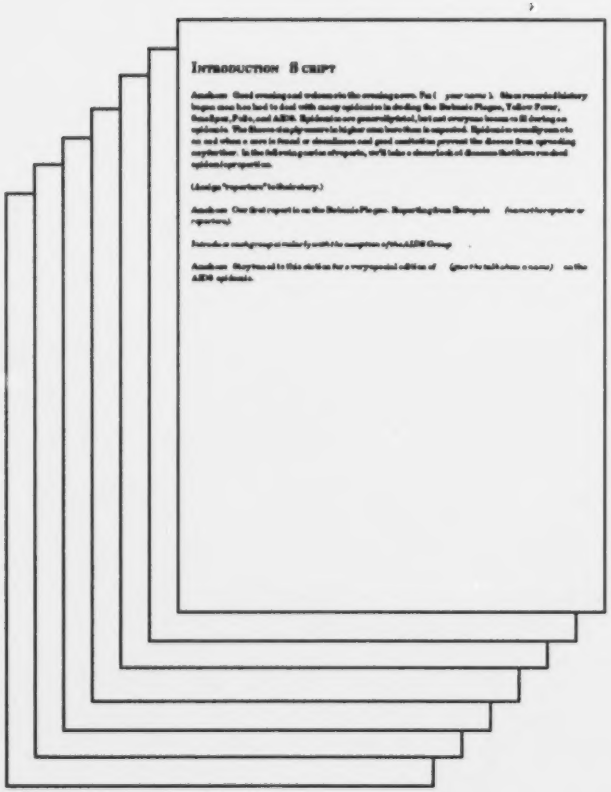
**Objective:**
To learn why AIDS is an epidemic and compare it to epidemics throughout history.

**Lesson Materials:**
Blackline Master: Introduction Script
Blackline Master: Epidemic Fact Sheets
Blackline Master: AIDS Epidemic Fact Sheet

**Activities:**
1. Tell the students that they are news anchors— soon to become field reporters.
2. Have students read the *Introduction Script.*
3. Divide students into six groups. Give each group an *Epidemic Fact Sheet.*
4. Allow time for groups to research their subjects.
5. Have all groups, ***except*** the AIDS group, prepare a skit using a television interview format.
6. Tell the AIDS group that they will be a panel of experts appearing on an interview talk show like "Donahue."

**Culminating Activities:**
1. Have the groups present their skits.
2. Select a host for the talk show panel of experts.
3. Introduce the host of the talk show. Allow the class to ask questions of and make comments to the panel of "experts".

**Backline masters for lesson #8—**
**found on pages 89-94, and 104**



INTRODUCTION SCRIPT

Anchor: Good evening and welcome to the evening news. I'm ( your name ). Since records of history began man has had to deal with many epidemics in the form of the Bubonic Plague, Yellow Fever, Smallpox, Polio, and AIDS. Epidemics are generally fatal, but not everyone becomes ill during an epidemic. The illness may be more in higher cities but less is reported. Epidemics usually run its course and when a cure is found or disciplines and good methods prevent the disease from spreading anywhere. In the following series of reports, we'll take a closer look at diseases that have created epidemics or reported on.

(Assign "reporters" to their story.)

Anchor: Our first report is on the Bubonic Plague. Reporting from Shreveport (name of the reporter or reporters).

Introduce or read group or make by with the exception of the AIDS Group

Anchor: Stay tuned to this station for a very special edition of (give the half-hour a name) on the AIDS epidemic.

# LESSON 9

**Focus:** Terminology

**Title:** What Do You Mean By. . .

**Objective:**
To explain what a specific term means in relation to AIDS.

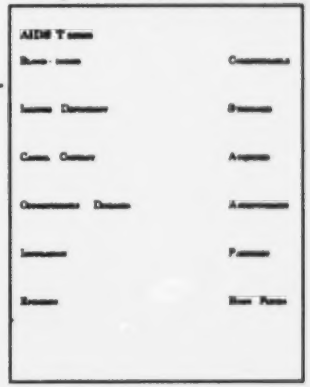
**Lesson Materials:**
Blackline Master: AIDS Terms

**Resource Materials:**
Magazine and newspaper articles on AIDS
Books about AIDS
Health agency pamphlets
Library

**Activities:**
1. Make a copy of the *AIDS Terms* activity sheet. Cut the terms apart and have students draw a term to investigate.
2. Have students investigate their term to determine how it relates to AIDS.
3. Each student should write a brief explanation of the term in their own words.

**Culminating Activities:**
1. Discuss the terms allowing each student to explain a term to the class.

**Blackline master for lesson #9—found on page 87**



# LESSON 10

**Focus:** Sexually Transmitted Diseases

**Title:** Charting the Risks

**Objective:**

To compare the risks of being sexually active.

**Lesson Materials:**

Poster board or newsprint paper
Markers

**Resource Materials:**

Books
Articles about sexually transmitted diseases
Library
Health agency pamphlets

**Activities:**

1. Have students investigate different sexually transmitted diseases to determine what causes them, how they are transmitted, what symptoms occur and long-term effects on the body.
2. Divide the class into groups of two or three students.
3. Have groups prepare a chart comparing and contrasting the various sexually transmitted diseases, including AIDS.

**Culminating Activities:**

1. Discuss the findings.

# Social Studies
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# LESSON 1

**Focus:** Debate

**Title:** School Policies

**Objective:**

To research, summarize and debate school and federal policy regarding AIDS confidentiality.

**Resource Materials:**

Local School District AIDS Policy

**Note:**

This lesson should be incorporated in or used after a study of the Bill of Rights.

**Activities:**

1. Define the term *confidentiality*.
2. Ask what the students know about AIDS. Correct any misconceptions. If students seem uninformed or are confused allow time for research on this subject.
3. Discuss who in the school setting should be informed about a person who is infected with the AIDS virus.
4. Ask students what they think should be included in a school district policy on AIDS.
5. Have students investigate in groups the present school district policy, Public law 94-142, and court cases that may have influenced the district's policy.

**Culminating Activities:**

1. Have students:
   a. Summarize district policy on AIDS.
   b. Support or oppose the policy. Use facts to support position and give specific suggestions for changes to improve the policy.

# LESSON 2

**Focus:** Epidemics

**Title:** A Peek at the Past

**Cross Reference:**
Science, Lesson 8

**Objective:**
To learn why AIDS is an epidemic and compare it to epidemics throughout history.

**Lesson Materials:**
Blackline Master: Introduction Script
Blackline Master: Epidemic Fact Sheets
Blackline Master: AIDS Epidemic Fact Sheet

**Activities:**
1. The teacher should tell the students that they are news anchors and they will soon become field reporters. Read the *Introduction Script.*
2. Divide students into six groups. Give each group an *Epidemic Fact Sheet.*
3. Allow time for further investigation.
4. Have all groups ***except*** the AIDS group prepare a skit following a television interview format.
5. Instruct the AIDS group that they will be a panel of experts appearing on an interview talk show like "Donahue". This group needs to pick a host for their show and be ready to field questions from the "audience".

**Culminating Activities:**
1. The teacher should be prepared to play "anchor" and introduce the field reporters working on each epidemic.
2. Finally, introduce the host of the talk show. Allow the class to ask questions of and make comments to the panel of "experts".

**Blackline masters for lesson #2—**
**found on pages 89-94, and 104**

# LESSON 3

**Focus:** Geography

**Title:** Vacation—HOT SPOTS

**Objective:**

To locate, compare and discuss cities and countries where AIDS, terrorist activity, political unrest or civil disturbance are significant problems.

**Lesson Materials:**

Wall map of the world
Colored stick pins or markers

**Resource Materials:**

Various travel brochures and magazines
US Dept. of State Briefings "Warning List"
World Health Organization Collaborating Centre on AIDS list of per capita AIDS cases

**Note:**

You may want to send away for the above lists in advance or make it a class project.

**Activities:**

1. Allow students to look through brochures and travel magazines.
2. Have students choose two places they would like to visit.
3. Let individuals locate their vacation spot on the map and place a specific color pin to mark the spot.
4. Designate a different color pin to represent high incidents of AIDS, terrorist activity and political unrest or civil disturbance, etc.
5. Have students place colored pins in high risk cities and countries.

**Culminating Activities:**

1. Compare chosen vacation spots and high risk areas of the world.
2. Discuss how knowledge of the different high risk areas and the risk involved might change vacation plans.

# LESSON 4

**Focus:** Sociology

**Title:** Life's Circles

**Objective:**

To compare and contrast personal lifestyles and personalities with the lifestyles and personalities of AIDS victims.

**Lesson Materials:**

Blackline Master: Life's Circles

**Resource Materials:**

Magazine and newspaper articles pertaining to AIDS.
Library

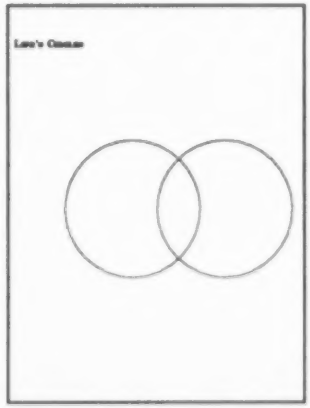
**Activities:**

1. Allow time for students to review articles.
2. Using the *Life's Circle* handout, have students list things about their lifestyle, personality and interests on the left side.
3. On the right side list those same things for the victims of AIDS they have read about.
4. In the overlap list the things that are similar.

**Culminating Activities:**

1. Discuss those traits and behaviors that would put a person "at-risk."
2. Have students note the "at-risk" behaviors listed in the left circle—their behaviors.

**Blackline master for lesson #4—found on page 105**



# LESSON 5

**Focus:** Posters

**Title:** AIDS Awareness

**Objective:**

To use creative expression to communicate important facts.

**Lesson Materials:**

Construction paper
Felt tip markers
Scissors
Glue

**Resource Materials:**

Magazine and newspaper articles on AIDS.
Books on AIDS
Pamphlet from health agencies
Library

**Activities:**

1. Have students investigate the subject of AIDS.
2. Have students work alone or in pairs to create posters, bumper stickers or buttons expressing something they have discovered about AIDS. Projects should focus on facts and at-risk behaviors important to adolescents.

**Culminating Activities:**

1. Display finished projects on a bulletin board, preferably in the hall or community area of the building.

# LESSON 6

**Focus:** Bill of Rights

**Title:** Workplace—Your Rights

**Objective:**

To examine and explain the rights of AIDS victims in the workplace.

**Resource Materials:**

US Constitution—Bill of Rights
Articles about AIDS and employment
Library

**Note:**

This lesson should be used after a study of the Bill of Rights.

**Activities:**

1. Have students investigate the rights of workers and the rights of the handicapped in the workplace.
2. Review articles dealing with employment and AIDS.

**Culminating Activities:**

1. Have students report a summary of their findings, this could be given in written form or discussed as a class.
2. Encourage students to express their opinion. Some might even wish to write a letter to the editor of the local newspaper or their congressman expressing their opinion.

# LESSON 7

**Focus:** Debate

**Title:** Mandatory AIDS Testing

Cross Reference:
Language Arts, Lesson 9

**Objective:**
To defend or refute either side of the mandatory AIDS testing issue.

**Resource Materials:**
Pamphlets from health agencies about AIDS
Articles from magazines and newspapers regarding mandatory AIDS testing
Library

**Activities:**
1. As a class, formulate a resolution with regards to mandatory AIDS testing.
2. Pair students into debate teams or group in panels.
3. Allow students time in and out of class to research the subject. Teams should be prepared to debate either side of the issue.
4. Have students keep card files with quotes to substantiate any claims made during the debate.

**Culminating Activities:**
1. An informal debate may be held. Students should be able to argue either side of the issue and back up their arguments with facts.

# LESSON 8

**Focus:** Current Events

**Title:** Who's Who in the AIDS Crisis

**Objective:**

To research a famous person who has become a victim of AIDS and tell what their contributions to society have been and how the disease affected their work, life and reputation.

**Resource Materials:**

Magazine and newspaper articles about AIDS victims.
Autobiographies of AIDS victims.
Library

**Activities:**

1. Discuss what makes a person newsworthy.
2. Allow time for students to become acquainted with famous people who have fallen victim to AIDS.
3. Discuss the different ways AIDS can be transmitted.
4. With instructor approval, have students choose a famous victim of AIDS to learn about in detail.

**Culminating Activities:**

1. Have students share the contributions of a famous person with the class. This can be done in written or oral form. Students should be sure to include how the disease affected the person's work or reputation.
2. Discuss the AIDS effect on historical remembrances of these famous people.

(Some students may want to learn about someone who is not a victim, but has contributed some way in the fight against AIDS.)

# Lesson 9

**Focus:** History

**Title:** Timeline: Putting AIDS in Perspective

**Cross Reference:**
Computers, Lesson 5

**Objective:**
To create a timeline that relates significant events in the AIDS pandemic with historical world events and events in the student's personal life.

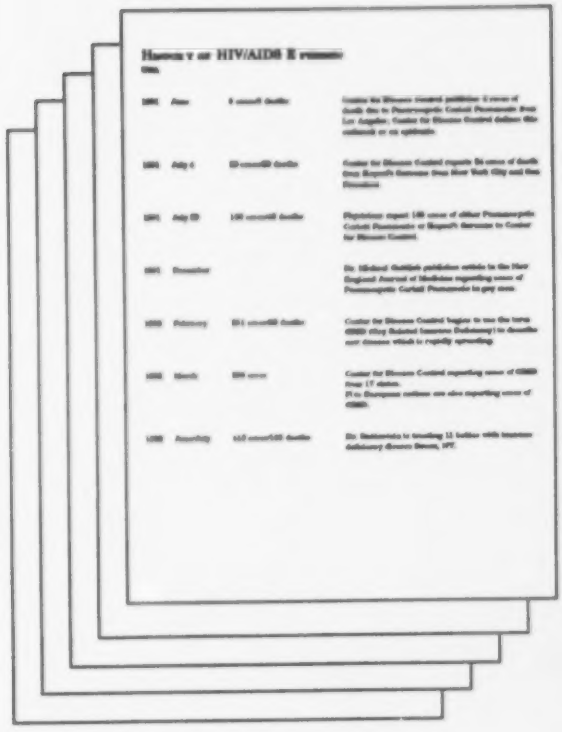
**Lesson Materials:**
Blackline Master: History of HIV/AIDS Epidemic-USA
**Timeliner** (computer program) Tom Snyder Productions

**Resource Materials:**
World Almanac
Chronicle of the 20th Century
Facts on File
Encyclopedia year books

**Activities:**
Have students:
1. Work in teams of two or three.
2. Read *History of HIV/AIDS Epidemic-USA.*
3. Find major events in United States and world history that coincide with major milestones in the AIDS crisis.
4. Make a list of events in their own lives that correspond to the dates of the other two lists.

**Culminating Activities:**
1. Using **Timeliner** have each group create a timeline using the three lists.

**Blackline masters for lesson #9—**
**found on pages 99-103**



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# LESSON 10

**Focus:** Economics

**Title:** The Economics of It All

**Cross Reference:**
Mathematics, Lesson 12

**Objective:**
To graph the financial implications of AIDS on the individual and the community.

**Lesson Materials:**
Poster board
Markers

**Resource Materials:**
Magazine and newspaper articles on the economics of AIDS
Library
US budget in pie graph form
US GNP in pie graph or bar graph form

**Activities:**
1. Have students research the financial cost of AIDS in pairs or groups.
2. Have each group prepare a chart showing where research dollars are going.
3. As a class, discuss what role the federal government plays in funding research and how much of the burden falls on the private sector. Be sure students realize that both sources of funding come from the same place, US citizens.
4. Have each group prepare a chart showing the cost of treatment for one individual with AIDS.
5. As a class, discuss who pays for individual care costs.

**Culminating Activities:**
1. Together create a graph showing the statistics found.
2. Compare this graph with graphs of the federal budget and the gross national product.

# LESSON 11

**Focus:** History

**Title:** Comparing Events

**Objective:**

To compare the Bubonic Plague and other epidemics with the AIDS epidemic and discuss the effect on society and the social structure.

**Lesson Materials:**

Blackline Masters: Epidemic Fact Sheets
Meter stick or tape measure
Tape
Ball of black or colored string

**Resource Materials:**

Pamphlets from health agencies
Recent magazine and newspaper articles
Library

**Activities:**

1. Divide students into six groups.
2. Assign each group an epidemic to investigate. (See *Epidemic Fact Sheets.*)
   a. Bubonic Plague in Europe
   b. Yellow Fever
   c. Smallpox
   d. Bubonic Plague in US
   e. Polio
   f. AIDS in US
3. Have students find the total number of deaths from the assigned epidemic.

**Culminating Activities:**

1. Allowing one centimeter for every 100 deaths, have each group measure and cut a piece of string representing an epidemic. You may want to use a different color string for each group.
2. Tape string to the wall in the hallway and label each string.
3. Discuss the implications and ramifications of the number of deaths and how it would affect society and the social structure.

**Blackline masters for lesson #11—**
**found on pages 89-94**

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# LESSON 12

**Focus:** Social Psychology

**Title:** A Study of Mass Hysteria

**Cross Reference:**
Language Arts, Lesson 4

**Objective:**
To present in oral or written form a report on mob psychology and mass hysteria.

**Lesson Materials:**
Blackline Master: Problem Analysis Form
Blackline Master: Values Clarification Exercise
Blackline Master: Peer Editing Form

**Resource Materials:**
*The Crucible*—by Arthur Miller
*The Ryan White Story*—Video (Available free from the Department of Education and Cultural Affairs-send a blank tape.)

**Activities:**
Have students:
1. Complete group research on:
   a. Salem Witch Trials
   b. McCarthyism
   c. Mob Psychology
   d. AFRAIDS (Acute Fear Regarding AIDS)
   e. The 1939 *War of the Worlds* Broadcast
2. Present findings as a series of panel discussions.
3. Act out or read Arthur Miller's *The Crucible*.
4. Discuss the decisions made by the following: John Proctor, Elizabeth, Abigail, Parris, Danforth, Mary Warren and Reverend Hale.
5. Analyze each of these decisions using the *Problem Analysis Form*.
6. Complete the values clarification exercise in small groups. Have one person act as recorder and report to the class.

**Culminating Activities:**

1. Have students write an essay comparing and contrasting the hysteria in the play with that presented by the panels earlier. Have classmates edit rough drafts for each other using the *Peer Editing Form*.

**Blackline masters for lesson #12—**
**found on pages 106, 110, and 118**

Problem Analysis Form
1. What is the problem?
2. Who is the problem hurting?
3. What are the possible solutions?
4. What are the advantages and disadvantages of each problem?
5. Which is the best solution?
6. What is the result?

# LESSON 13

**Focus:** Peer Pressure

**Title:** The "Cool" Thing

**Cross Reference:**
Computers and Related Technologies, Lesson 7

**Objective:**
To identify risk-reduction techniques.

**Lesson Materials:**
Videodisc player
ABC News Interactive videodisc "Health: AIDS"

**Activities:**
1. Conduct a class discussion about what it means and what is required to be "cool."
2. View Chapters 3 and 4 on side two of the videodisc.
3. Discuss how Ryan and Allison are like or unlike kids in your school.
4. Ask students if they think Ryan or Allison would be considered "cool" in your school. Why or why not?
5. View frames 27877-30757 on side two of the videodisc.
6. Use the questions on page 101 of the videodisc guidebook for discussion.

**Culminating Activities:**
1. Ask students to make a list of comebacks when pressured by peers to do dangerous things to be "cool."

## Bright Ideas

1. If your students keep a journal, have them write about how the lessons and television commercials, news programs and media attention on AIDS has made them feel.

2. Arrange for students to correspond with penpals who have AIDS.

3. Have a local AIDS expert or a doctor with AIDS experience talk to the class about transmission and prevention.

4. Make a time capsule, including news articles and trendy memorabilia. Include an article on the AIDS epidemic or letters in which students express their feelings about AIDS, nuclear arms, space travel and the future.

5. Create a model of a memorial for AIDS victims.

6. Write a play about a day or year in the life of someone with AIDS and perform it for the student body.

# AIDS/HIV

(What Do You Know?)

**Directions:** Circle ***A*** if you agree, ***D*** if you disagree or ***U*** if you are unsure. Do not guess—if you are not sure, circle the ***U***.

| | | | | |
|---|---|---|---|---|
| 1. | A | D | U | AIDS can be cured if treated early. |
| 2. | A | D | U | The immune system functions to protect the body from infection. |
| 3. | A | D | U | You can get AIDS by sharing eating utensils. |
| 4. | A | D | U | Only gay men get AIDS. |
| 5. | A | D | U | You can get infected with HIV by donating blood. |
| 6. | A | D | U | You can be exposed to the AIDS virus by sharing needles with an infected IV drug user. |
| 7. | A | D | U | The AIDS virus has been contracted by bug bites. |
| 8. | A | D | U | A person can be infected with the AIDS virus and not know it. |
| 9. | A | D | U | AIDS is caused by human immunodeficiency virus, HIV. |
| 10. | A | D | U | If you kiss someone with AIDS, you will get the disease. |
| 11. | A | D | U | Anyone can get AIDS. |
| 12. | A | D | U | If a pregnant woman has AIDS, it can harm her unborn baby. |
| 13. | A | D | U | Students who attend school with someone who is HIV infected are at high risk of becoming infected with HIV. |
| 14. | A | D | U | There is no cure for AIDS. |

# AIDS/HIV (ANSWER SHEET)

(What Do You Know?)

**Directions:** Circle ***A*** if you agree, ***D*** if you disagree or ***U*** if you are unsure. Do not guess—if you are not sure, circle the ***U***.

| | | | | |
|---|---|---|---|---|
| 1. | A | (D) | U | AIDS can be cured if treated early. |
| 2. | (A) | D | U | The immune system functions to protect the body from infection. |
| 3. | A | (D) | U | You can get AIDS by sharing eating utensils. |
| 4. | A | (D) | U | Only gay men get AIDS. |
| 5. | A | (D) | U | You can get infected with HIV by donating blood. |
| 6. | (A) | D | U | You can be exposed to the AIDS virus by sharing needles with an infected IV drug user. |
| 7. | A | (D) | U | The AIDS virus has been contracted by bug bites. |
| 8. | (A) | D | U | A person can be infected with the AIDS virus and not know it. |
| 9. | (A) | D | U | AIDS is caused by human immunodeficiency virus, HIV. |
| 10. | A | (D) | U | If you kiss someone with AIDS, you will get the disease. |
| 11. | (A) | D | U | Anyone can get AIDS. |
| 12. | (A) | D | U | If a pregnant woman has AIDS, it can harm her unborn baby. |
| 13. | A | (D) | U | Students who attend school with someone who is HIV infected are at high risk of becoming infected with HIV. |
| 14. | (A) | D | U | There is no cure for AIDS. |

# BLACKLINE MASTERS

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**Key:**

C Computers and Related Technologies
LA Language Arts
M Mathematics
SC Science
SS Social Studies

## AD ANALYSIS FORM

1. How accurate is the information presented?

2. How was the use of language effective? Give examples.

3. How were visual effects used to enhance the message?

4. Did the advertiser use parallel structure, imagery, storytelling or something else to get his point across?

5. Did the ad "sell" you? Why or why not? Be specific.

6. Would this ad work in another media? Why or why not?

## AIDS Terms

| | |
|---|---|
| Blood-borne | Communicable |
| Immune Deficiency | Syndrome |
| Casual Contact | Acquired |
| Opportunistic Diseases | Asymptomatic |
| Incubation | Pandemic |
| Epidemic | Body Fluids |

# AVERAGE VALUE OF A FUNCTION

**You have probably been finding areas using the definite integral. They can also be used to determine the average value of a finite number of data points including problems from calculating the effective voltage and current in an electric circuit to determining the yearly average of persons affected by the AIDS virus. The following problems deal with the number of individuals having AIDS in the world and the United States.**

Determine the average value for each year using the given functions:

1981 to 1982
1984 to 1985
1986 to 1987

1. The Worldwide AIDS function is:
   $f(x)=1.76x^6 -.0034x^5 +.01x^4 +.00183x^3 +.00304x^2 +.1183x +.11$

2. The United States AIDS function is:
   $f(x)=1.67x^5 -37.5x^4 +225x^3 +62.5x^2 +448x +250$

# Epidemic Fact Sheet

## AIDS

## 1981-?

In the United States, Acquired Immune Deficiency Syndrome first appeared in the homosexual community in June of 1981. Soon cases were discovered in heterosexual intravenous drug users and in people who had received blood transfusions or blood products. By June, 1982, 413 cases had been reported to the Centers for Disease Control and 155 people had died. The virus that causes the disease, Human Immunodeficiency Virus (HIV), was then discovered in 1983.

By March 1989 the number of deaths from AIDS had reached 53,000, more than the total number of military personnel lost in the Vietnam conflict.

The AIDS virus destroys the cells of the body that normally fight disease, making it very difficult for the body to rid itself of the AIDS virus or other germs and diseases. Once people have the AIDS virus, they will carry it in their body cells for the rest of their lives.

The virus is transmitted from one person to another through blood, semen and vaginal fluid. The virus can be found in other body fluids; but in very small amounts. The AIDS virus cannot be "caught" in daily activities like going to school, working with someone with the virus or living in the same house as someone with AIDS.

The public response to AIDS has been mixed. Some people have the mistaken idea that AIDS is a homosexual disease, others believe AIDS victims should be quarantined, and a few believe that AIDS is a scourge from God. Although AIDS is a frightening disease, there has been little violence and few cases of families deserting members who have AIDS.

To date no cure or treatment has been found. Everyone who contracts the HIV virus develops AIDS eventually, and everyone who gets AIDS dies.

# EPIDEMIC FACT SHEET
# BUBONIC PLAGUE IN EUROPE
# 1348-1349

Epidemics were common in the Middle Ages, occurring about every 25 years or so. The worst plague ever recorded in Europe was The Great Plague of 1348-1349. This was also called "The Black Death". There was a very high death rate. Twenty-five million people died, about one-fourth of the total population.

Everything stopped during the epidemic. Trade stopped, people produced very little food, the courts stopped meeting and there was no policing of crimes.

Bubonic plague was easily transmitted. People contracted it from the bites of fleas who had gotten the infection from infected rats. It was a very painful disease that killed people in one to three days from the time they were bitten by the flea.

Living conditions in the cities were crowded and unsanitary; rats and fleas flourished. Many people were infected, and the disease spread rapidly. Almost everyone who got the disease died. There was no treatment and no cure.

People did not know how the disease was caused. They were afraid of catching it from those already infected, so the sick were often abandoned to die alone.

No one wanted the disease. They prayed to God to protect them. Some worshiped the devil and wore amulets or charms. Some tried to ward off the disease by chanting incantations or using a magic word, "Abracadabra". It was hoped that burning incense or leaves or burning things that filled the air with foul smells was a preventative. Some people stopped bathing, others stopped having sex. Some people believed the night air was poisonous. Some doctors recommended drinking or washing with goat urine.

In many communities in Europe, Jews were blamed for causing or deliberately spreading the plague. They were accused of poisoning wells and planning the destruction of the Christian population, even though Jews were dying of the plague as much as Christians. Mass persecution of Jews was common. Hundreds of thousands of Jews were massacred throughout Europe during these times. When the plague ended, so did the persecutions.

Adapted from Teaching AIDS, revised ed., Network Publications, a division of ETR Associates

# Epidemic Fact Sheet
# Bubonic Plague in San Francisco
# 1900 & 1907

Bubonic plague appeared in San Francisco in 1900. A Chinese man was the first to be diagnosed with the disease, and most other cases were also among the Chinese. The San Francisco Board of Health believed Chinatown was a source of the disease because of "unwholesome odors."

The Chinese were blamed for the disease, and the city, state and federal authorities took action; Chinatown residents were placed in quarantine.

No changes were made in the poverty or overcrowded conditions in Chinatown. The city did not even provide health care to their quarantined people.

Chinese and Japanese could not leave California without a federally issued medical certificate. Detention camps for San Francisco's 14,000 Chinese residents began to be prepared.

The State Board of Health recommended that Chinatown be demolished and saturated with chloride of lime and carbolic acid. The 1906 earthquake destroyed Chinatown before the plan could be carried out.

Bubonic plague was easily transmitted. People contracted it from the bites of fleas who had gotten the infection from infected rats. It was a very painful disease that killed people in one to three days from the time they were bitten by the flea.

Another outbreak of the plague occurred in 1907 in San Francisco. This time few of the afflicted were Chinese, most were Caucasion. The Board of Health carried out a citywide program for killing infected rats and their disease-bearing fleas. The disease was stopped.

Adapted from Teaching AIDS, revised ed., Network Publications, a division of ETR Associates

# Epidemic Fact Sheet
# Polio

Infantile paralysis (poliomyelitis), has been a problem since early times. Human remains from 3700 B.C. indicate the disease. Some of the recorded epidemics and important developments in treatment are listed as follows:

**1916**—27,000 US cases.
**1943**—1,151 deaths, thousands were paralyzed.
**1952**—58,000 US cases.
**1954**—Dr. Jonas Salk developed vaccine.
**1955**—August 12, US Congress passed the Poliomyelitis Vaccination Act; enough money was made available so all children could be vaccinated.
**1955**—Albert Sabin developed oral vaccine.
**1957**—6,000 US cases.

In 1907 poliomyelitis (polio) was confirmed to be an infectious disease by Otto Ivar Wickman (German). Several mild epidemics were noted in colonial times, but the disease was not known to the general public until 1916. During that year in New York City alone, 9,000 children were infected; of these 2,000 died.

Polio occurred worldwide before large-scale immunization programs were carried out. During 1971-1978 a yearly average of only 15 cases were reported in the United States, 9.6 in the United Kingdom, and 2.8 in Canada.

An infection that is caused by a virus quickly becomes severe. Symptoms range from unapparent signs, to fever, paralysis and possible death.

The virus multiplies in the alimentary tract (between mouth and anus). It invades the central nervous system and attacks motor cells, resulting in paralysis. This leaves the infected body part limp, most often the lower part of the body. Paralysis of muscles for breathing and swallowing may threaten life.

The disease is transmitted by direct contact. In a few cases, foods and other fecally contaminated materials have been discovered to be the sources of transmission. There is no reliable evidence of spread by insects or virus-contaminated sewage, and water is seldom involved. Where sanitation is good, discharge from the throat becomes the major mode of transmission. The virus is more easily detectable for a longer period in feces than in throat secretions.

Adapted from Teaching AIDS, revised ed., Network Publications, a division of ETR Associates

# Epidemic Fact Sheet
## Smallpox

Smallpox has caused many deaths throughout recorded history. Some of the recorded epidemics and important developments in treatment are as follows:

**1616**—Almost all of the Indians in New England died.
**1667**—Smallpox spread throughout Virginia.
**1697**—Smallpox spread to Charleston, South Carolina.
**1713**—Outbreak reported in Cape Colony, South Africa.
**1740**—Berlin, Germany reported an outbreak.
**1800**—First vaccination in America was given by the inventor to his son.
**1802**—James Smith, a Maryland physician, opened a clinic to give free smallpox vaccinations to the poor.
**1853**—Vaccination against smallpox was made compulsory in England.

This serious disease is presently under control because of the worldwide use of vaccine. The disease caused many people's deaths and disfigurement.

This infectious and highly contagious disease is caused by a virus. The disease comes on very quickly and is accompanied by a very high fever, headache and a severe backache followed by deep eruptions on the skin. In general, fatality rates ran from 5-15 percent.

The disease was most often transmitted by close contact with the infected person, including contact with respiratory discharges or sores on the skin or materials contaminated by the victim. Household, school and hospital association with infected people offered great risks.

Victims were usually put into quarantine for seventeen days, as were all members of their family and others with whom they had close contact. Quarantined people were examined daily for signs of the disease.

Permanent immunity for people who lived through the disease occurred, and very few people had it a second time. This important clue led scientists to search for a vaccine.

Adapted from Teaching AIDS, revised ed., Network Publications, a division of ETR Associates

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# Epidemic Fact Sheet
# Yellow Fever

Yellow fever has caused many deaths throughout recorded history. Some of the recorded epidemics are:

**1699**—In Charleston, South Carolina, and in Philadelphia nearly one-sixth of the population died.
**1741**—10,000 died in Cadiz, Spain.
**1793**—During the worst epidemic in any .S city up to this time, 5,000 died in Philadelphia.
**1798**—In New York City 2,086 deaths.
**1800**—80,000 deaths in Spain.
**1802**—29,000 of Napoleon's soldiers died in the Dominican Republic.
**1810**—25,000 deaths in Spain.

Yellow fever is a violent disease caused by a virus transmitted by the bite of a mosquito. It has a sudden onset with fever, headache, backache, exhaustion of the body, nausea and vomiting. The death rate can be a low as 5 percent with lifetime immunity for survivors, or as high as 50 percent.

In 1902 Army surgeon W.C. Gorgas was able to control an epidemic of yellow fever in Havana, Cuba by killing mosquitoes and destroying the breeding area. He was able to do the same in Panama two years later. Construction of the Panama Canal was then started.

Today immunization is available for people going into areas of possible infection. Immunity from vaccination will last up to 17 years. There have been only a few cases in the Americas since 1942 (some in Trinidad, West Indies in 1954). Cases are still reported in parts of Africa near rain forests.

Adapted from Teaching AIDS, revised ed., Network Publications, a division of ETR Associates

# Evaluating Functions

A mathematical function is like a simple machine such as an ice cube maker in a refrigerator. No matter what liquid you put in the maker it will always take the liquid and freeze it into ice cubes. A function of the form $f(x)=x^2+3x-2$ is much the same. For example, put any number into the function for x. The function will squared this number, add it to the product of 3 and the number, then finally subtract 2. It does the same thing no matter what the number is just like the ice cube maker. This process is called evaluating function. To evaluate means to find the y value associated with the chosen x.

$f(t)=.0026t^6 - .0034t^5 + .01t^4 + .00183t^3 + .00304t^2 + .1318t + .11$

Find the number of known cases per 10,000 in the world for years since 1981. For example:

In 1981 let t=0, thus
$f(0)=.0026(0)^6 - .0034(0)^5 + .01(0^4)+.00183(0^3)+.00304(0^2)+.1318(0) + .11=.11$

Thus in 1981, there were (.11)x(10,000) or 1,100 known cases.

In 1982 let t=1, thus
$f(1)=.0026\ (1)^6 - .0034(1)^5+.01(1^4)+.00183(1^3)+.00304(1^2)+.1318(1)+.11=.27$

Thus in 1982, there were (.27)x(10,000) or 2,700 known cases.

Determine the number of cases for years:

1. 1983
2. 1985
3. 1987

The function representing full-blown AIDS cases in the United States is given by

$f(x)=1.67x^5 - 3.75x^4 + 225x^3 + 62.5x^2 + 498x + 250.$

Determine the number of cases in the United States for years:

1. 1982
2. 1986
3. 1987
4. 1991
5. 1995
6. 2000



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# GRAPHING ORDERED PAIRS

**The following data represents the number of known cases of Acquired Immune Deficiency Syndrome (AIDS) from years 1981 to 1987 for the world and the United States. Let $x$ represent the year and the number of known cases for the year. Graph both sets of ordered pairs on the given coordinate system using an * for the world data and a + for the United States.**

**Worldwide Data**

1. (1981: 1,100)
2. (1982: 2,700)
3. (1983: 6,000)
4. (1984: 12,000)
5. (1985: 20,000)
6. (1986: 28,200)
7. (1987: 36,200)

**United States Data**

1. (1981: 250)
2. (1982: 1,000)
3. (1983: 2,750)
4. (1984: 5,750)
5. (1985: 9,750)
6. (1986: 14,200)
7. (1987: 18,474)

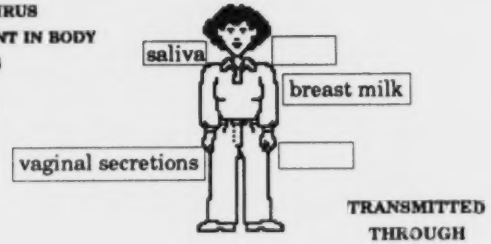
# COURSE OF TRANSMISSION

EXPOSED PERSON(S)

BLOOD CONTACT AND/OR SEXUAL CONTACT

INFECTED PERSON

AIDS VIRUS PRESENT IN BODY FLUIDS




TRANSMITTED THROUGH

**ENTRANCE POINTS OF THE AIDS VIRUS**

1. Breaks in skin
2.
3. Vagina
4.
5. Rectum
6. Mucous Membrane

**EXIT POINTS OF THE AIDS VIRUS**

1.
2. Penis
3.
4. Mouth
5. Rectum
6. Mucous Membrane

TO UNINFECTED PERSON(S)

**KNOWN METHODS OF TRANSMISSION**

1. Sexual contact
2. Sharing any needles, especially for drugs
3.
4. Blood transfusion before 1986



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# GRAPHS AND THEIR EQUATIONS

**It is often the occasion in everyday living that sets of relationships or data are known. It becomes the job of a mathematician to compile this raw data and develop an equation or formula representing the data. From this equation, future trends and predictions can be made. Such are the cases below concerning AIDS. The data given in the graph can be expressed as ordered pairs with *x* representing years and *y* indicating the number of known cases. The first graph concerns worldwide figures; whereas, the second uses data from the United States.**

To solve the worldwide problem:

Let *x* represent years since 1981 and *y* indicate the number of known cases per 10,000. This is done so the graph can be constructed more simply. Choose 7 ordered pairs starting with x=0, y=.11 and ending with x=6 and y=3.62. Write a 7x7 system of equation representing the ordered pairs, then solve the system using the equations indicated by your instructor.

To solve the United States problem:

Let *x* represent number of years since 1981 and *y* indicate the number of cases in the United States. Choose 6 ordered pairs starting with x=0 and y=250 and ending with x=6 and y=14,200. Write a 6x6 system of equations representing the ordered pairs, then solve this system using the method indicated by your instructor.

# HISTORY OF HIV/AIDS EPIDEMIC
## USA

| | | | |
|---|---|---|---|
| 1981 | June | 5 cases/5 deaths | Center for Disease Control publishes 5 cases of death due to Pneumocystis Carinii Pneumonia from Los Angeles; Center for Disease Control defines this outbreak as an epidemic. |
| 1981 | July 4 | 29 cases/29 deaths | Center for Disease Control reports 29 cases of death from Kaposi's Sarcoma from New York City and San Francisco. |
| 1981 | July 29 | 108 cases/43 deaths | Physicians report 108 cases of either Pneumocystis Carinii Pneumonia or Kaposi's Sarcoma to Center for Disease Control. |
| 1981 | December | | Dr. Michael Gottlieb publishes article in the New England Journal of Medicine regarding cases of Pneumocystis Carinii Pneumonia in gay men. |
| 1982 | February | 251 cases/99 deaths | Center for Disease Control begins to use the term GRID (Gay Related Immune Deficiency) to describe new disease which is rapidly spreading. |
| 1982 | March | 285 cases | Center for Disease Control reporting cases of GRID from 17 states. Five European nations are also reporting cases of GRID. |
| 1982 | June/July | 413 cases/155 deaths | Dr. Rubinstein is treating 11 babies with immune deficiency disease Bronx, NY.<br><br>First Hemophiliac case of Pneumocystis Carinii Pneumonia reported to Center for Disease Control, Denver, Colorado. |







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| | | | |
|---|---|---|---|
| | | | Term AIDS is suggested as name for this new disease because of hemophiliac cases. |
| | | | Thirty-four cases among Haitian men are reported to Center for Disease Control. |
| 1982 | August | 625 cases/258 deaths | Dan Rather of CBS Nightly News does first media story on AIDS. |
| | | | First transfusion case of AIDS in New York City. |
| 1982 | November | | Thirty-three states report cases of AIDS. |
| 1983 | January | 1,641 cases/644 deaths | Discovery of virus LAV believed to cause AIDS announced by the Pasteur Institute in France. |
| | | | First US Government funding to do research on AIDS at National Institute of Health. |
| 1983 | April | | AIDS story appears on cover of *Newsweek*. |
| 1983 | December | 3,064 cases/1,292 deaths | Gay Men's Health Crisis is only educational program with a prevention focus for AIDS. |
| 1984 | April | 3,899 cases/1,702 deaths | Public announcement of discovery of virus HTLVIII believed to cause AIDS by Dr. Gallo at National Institute of Health. |
| | | | Ryan White is diagnosed with AIDS. |
| 1984 | September | | Eighty cases of AIDS due to transfusion reported to Center for Disease Control. |

| | | | |
|---|---|---|---|
| 1985 | January | 8,057 cases/3,863 deaths | Fifty cases of AIDS due to heterosexual transmission reported to Center for Disease Control. |
| 1985 | March | | AIDS virus antibody test begins to be used to test the blood supply. |
| 1985 | July | 11,271 cases/5,641 deaths | News that Rock Hudson is being treated for complications of AIDS is released to the press. Media attention focuses on AIDS epidemic. |
| 1985 | September | | First case of AIDS reported in South Dakota. |
| 1986 | January/March | | Cases of AIDS reported to the World Health Organization from 51 countries.<br><br>European countries mount educational programs on AIDS prevention. |
| 1986 | October | 25,650 cases/14,345 deaths | Surgeon General C. Everett Koop submits report to Reagan administration regarding the AIDS epidemic and needs for research, programs etc. |
| 1987 | February | | HIV is agreed on as name for virus responsible for AIDS. |
| 1987 | March | 33,482 cases/19,394 deaths | President Reagan makes his first speech which mentions AIDS. |
| 1987 | May | | President Reagan appoints a National Commission to study HIV/AIDS epidemic. |
| 1988 | January | 51,916 cases/28,965 deaths | Public education begins to be mounted in the US as a means to stopping spread of HIV. "Understanding AIDS" is mailed to every household in the US from Department of Health and Human Services. |



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| | | | |
|---|---|---|---|
| 1988 | June | 65,780 cases/37,195 deaths | Presidential Commission on HIV Infection issues its report with over 200 recommendations to deal with the epidemic. |
| 1988 | July | | Center for Disease Control adds Persistent Generalized Lymphadenopathy to its AIDS case definition. |
| 1988 | December | | Mortality rate of AIDS cases is 56%. |
| 1989 | January | 82,764 cases/46,344 deaths | New York State AIDS case numbers reach 20,000. |
| 1989 | March | 53,000 deaths | Deaths from AIDS surpass the total number of military personnel lost in Vietnam. |
| 1989 | April | 97,193 cases/57,205 deaths | AIDS becomes the 9th leading cause of death in children ages 0-4 years. |
| 1989 | June | | International Conference on AIDS is held in Montreal.<br><br>World AIDS cases reported to World Health Organization surpass 150,000 cases.<br><br>In US heterosexual transmission cases = 5% of all cases. |
| 1989 | September | 109,167 cases/64,849 deaths | AIDS becomes the leading cause of death for women of childbearing age in New York City; female AIDS cases in US = 10,587 cases. |
| 1989 | December | | AIDS case numbers are increasing at rate of 3,000 cases per month. |

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| | | | |
|---|---|---|---|
| 1990 | January | 121,645 cases/79,250 deaths | New York Post reports 1 in 4 New York City males age 25-44 are HIV infected.<br><br>Thirty-two cases of AIDS had been reported in SD with twenty-seven deaths. |
| 1990 | April | | Ryan White dies of complications of AIDS. |
| 1990 | June | | Sixth International Conference on AIDS is held in San Francisco. Boycott by many International Health Organizations protesting US Immigration Policy (which discriminates against HIV infected persons) limits conference attendance. |
| 1990 | July | 143,286 cases/87,644 deaths | AIDS is now 5th leading cause of death for women (30-39 years) in New York State. |
| 1991 | February | 167,803 cases/106,361 deaths | |

**Note:** This history is not meant to be all inclusive, but rather to highlight selected events.

Sources: Center for Disease Control HIV/ AIDS Surveillance Report *The Band Played On* by Randy Shilts
Taken from a compilation by Eileen Ponto RN, BSN, AIDS Educator.

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## INTRODUCTION SCRIPT

**Anchor:** Good evening and welcome to the evening news. I'm (*your name*). Since recorded history began man has had to deal with many epidemics; including the Bubonic Plague, Yellow Fever, Smallpox, Polio and AIDS. Epidemics are generally fatal, but not everyone becomes ill during an epidemic. The illness simply occurs in higher numbers than is expected. Epidemics usually come to an end when a cure is found or cleanliness and good sanitation prevent the disease from spreading any further. In the following series of reports we'll take a closer look at diseases that have reached epidemic proportion.

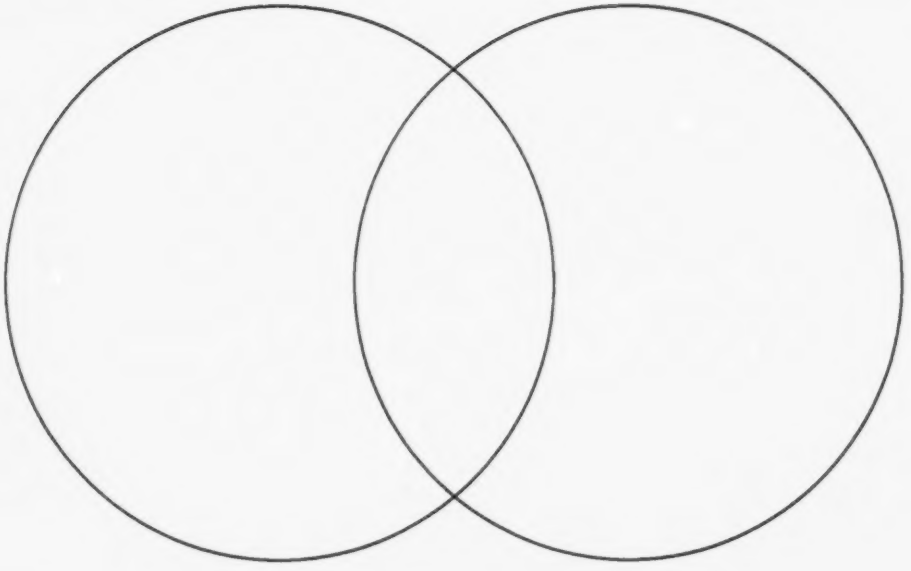
(Assign "reporters" to their story.)

**Anchor:** Our first report is on the Bubonic Plague. Reporting from Europe is *(name the reporter or reporters).*

*Introduce each group similarly with the exception of the AIDS Group.*

**Anchor:** Stay tuned to this station for a very special edition of *(give the talk show a name)* on the AIDS epidemic.

## Life's Circles







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# PEER EDITING FORM

**Directions:** Be specific. Give examples and suggestions.

1. Name of writer and editor.

2. Which specific references to the characters and events from the play helped clarify assertions?

3. Which assertions would be more effective if examples or quotes from the text were added?

4. Which direct quotes from the text help give the reader the flavor of Miller's style? List the first and last word of each.

5. What suggestions for improvement can you make?

## Persona to Persona Suggestions

**Teacher note**: personas may be assigned or drawn from slips of paper.

1. From the 16 year-old sister of a 20 year-old girl who has just tested AIDS positive to a friend.

2. From the teacher of a 15 year-old boy who has asked for advice about a girl who is pressuring him to have sex with her to Ann Landers (or to the boy).

3. From a 10 year-old girl whose friends are urging her to use drugs and alcohol to her 16 year-old cousin, with whom she has always had a close relationship.

4. From a young woman whose friend has AIDS, asking what she can do for her friend, to a cousin whose wife died of AIDS last year.

5. From someone who has AIDS, to a person he/she may have infected.

# POETRY EVALUATION FORM

**Directions:** Give examples and suggestions to reinforce your answers.

1. Is the theme clear?

2. Is the language effective?

3. Does the poem call for an emotional response from the reader?

4. Does it sound sincere?

5. What words do you find original or interesting?

6. Where did the poem seem too vague or general?

## Poetry Topic Suggestions

1. In New York in 1989, there were 1000 babies born with AIDS. Write a poem about this from a sibling's point of view.
2. Babies can contract AIDS from their mother's breast milk. Write a poem that suggests this lethal nursing, using a metaphor or allusion to classical literature.
3. Write a poetic eulogy for an imaginary friend who has just died of AIDS.
4. Write a poem that celebrates a healthy body, unaffected by drugs.
5. Write the lyrics for a song about making choices.
6. Use images of war in an analogy poem about AIDS.



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## PROBLEM ANALYSIS FORM

1. What is the problem?

2. Who is the problem hurting?

3. What are the possible solutions?

4. What are the advantages and disadvantages of each problem?

5. Which is the best solution?

6. What is the result?

# Rates of Change

Rate of change is one of the more important mathematical concepts used in everyday events and situations. Whether it be the increase in per capita income or the decrease in the prime interest rate, a rate of change is given indicating what happened and whether it was good or bad. Reading the rate of change in the newspaper or hearing it on the radio, an immediate reaction can be made due to its simplicity. You will be calculating two types of rate of change. The average rate reflects the amount of change over an interval of time; whereas, instantaneous rate of change reflects the change at an exact time. The function representing the growth of the AIDS in the United States is given by:

$f(x)=1.67x^5 -37.5x^4 +225x^3 +62.5x^2 +448x +250$

1. Calculate the average rate of change for the years:

   1981 to 1982
   1984 to 1985
   1986 to 1987

2. Calculate the instantaneous rate of change for the years:

   1982
   1985
   1987

## Research Topics

1. What is the *Names Project*?
2. Can one get AIDS from mosquitoes?
3. How widespread is the disease globally?
4. What is the sero-convert theory as it relates to AIDS-born babies who test negative at age two or three?
5. What is the US military policy on AIDS testing and the treatment of AIDS-positive personnel?
6. What methods did Surgeon General Koop use to get his program through Congress?
7. What happens to a prisoner who tests HIV or AIDS positive?
8. What is the federal government's plan to combat AIDS?
9. What is the AIDS epidemic impact on health insurance programs?
10. What is Karposi's sarcoma, its causes, prevention methods, and cure possibilities?
11. What is PCP?
12. What is the usual progression of a communicable disease? Are mutations of the disease likely?
13. What is Hepatitis B and why is knowledge about it so important?
14. What is the immune deficiency disease called ARC? In what ways is it similar to AIDS and HIV?

## Rough Draft Editing Form

1. Which words are misspelled?

2. Which words should be replaced by more specific or more accurate ones?

3. Which sentences could be tightened by eliminating words and being combined with other sentences?

4. Is the paragraphing logical? If not, where does it break down?

5. Which of the main points would be stronger if more proof or specific detail were added?

6. Are there any questions in your mind that were not answered?

7. What are the chief strengths of the paper?

# Speech Evaluation Form

**Directions:** If you answer *no* to any of the following, give suggestions for improvement. If you answer *yes*, give examples.

1. Did the speaker use eye contact and gestures effectively?

2. Did the speaker use transitions and other signal words that made the speech clear and easy to follow?

3. Did it appear that the speaker had completed the necessary research?

4. Did the speaker appear to have polished the presentation through practice and revision?

5. Did the speaker hold your attention through humor, story-telling and other devices?

6. Did the speaker use ethical persuasion devices such as logic and documentation?

7. Did the speech convince you to take the action requested?

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## Speech Topic Suggestions

1. You have just learned that a petition is being circulated to ask the school board to fire a favorite teacher. The teacher has AIDS. Prepare your speech for the board meeting.

2. You are concerned about the fact that many sixth graders in your town are heavily involved in drug abuse and sexual activity. Prepare a speech to give at a sixth-grade assembly, persuading students to protect themselves from the harms which may result from these activities.

3. You are a lobbyist for the National AIDS Commission, and you have been invited to testify before the House committee studying AIDS research. Prepare your testimony.

4. As a member of Congress, you have written a new bill against discrimination of people with AIDS. Persuade your colleagues to support your bill.

5. Parents against sex education in school are trying to persuade the school board to disallow an AIDS awareness program in your school. Prepare to voice your opinion.

## STATISTICS REVIEW

**Directions:** Using the current statistics for pediatric AIDS cases, answer the following questions.

1. Which exposure category for children under 13 years old has the most reported cases? How many currently reported cases are there?

2. Find the pediatric subtotals for the five race/ethnic categories.

3. White children under 13 years of age have how many more incidences of AIDS exposure than all the other race/ethnic categories combined?

4. How many children under 13 years old were exposed to AIDS through receiving blood transfusions, blood components or tissue?

5. More black children suffered exposure to AIDS through their mothers than any other race/ethnic group. Find how many more black children under 13 years old were exposed in any way through their mothers than American Indian children under 13 years of age.

# THE ENVELOPE GAME
## (THE AIDS TRANSMISSION GAME)

**Preparation:** Prior to game, prepare an envelope for every member of the class. Under the flap of each envelope, write the letter ***A, B*** or ***C***. Arrange the distribution of the letters so that 1 in 10 bear the letter ***A***.

**Process:**

1. Distribute one envelope to each player, tell them to look at the letter under the flap, remember it and keep it a secret.
2. Have players mingle with the class and exchange envelopes with one other person. Write the original letter from the first envelope on the new envelope beside the letter that is already written.
3. Tell the players to remember both of their letters and continue to mingle. They may exchange envelopes with one other person if they choose. They are to write both their letters on the flap of their new envelope.
4. Now, announce that each person has seen two or three envelopes. If they have an "***A***" on their envelope, they have been exposed to the AIDS virus. If their envelope only has "***B***" or "***C***" on it they are still uninfected.
5. Now, tell the players they may mingle and exchange envelopes one more time if they wish.
6. Begin a discussion with the following questions:

    a. Did you get an ***A*** on your envelope just by mingling and talking? (no, envelopes had to be exchanged)

    b. What does each exchange represent? (sex or sharing IV needles)

    c. Could you tell ahead of time which people had an ***A*** under the flap of their envelopes?

    d. If you still did not have an ***A*** when the risk was disclosed, did you want to exchange again?

    e. Does it bother you to know that there are people in the room with an ***A*** on their envelope?

Adapted from Students Teaching AIDS to Students, American Medical Student Association, 1988.



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## Values Clarification Exercise

1. What is a "good name"?

2. How important is the truth?

3. Is pride a good or bad character trait?

4. What are you proud of?

5. Can you say no when asked to do something you don't want to do?

6. What are some lines you can use to make a refusal?

# GLOSSARY OF TERMS

**Abstinence** - No sexual intercourse, no IV drug use.

**Acquired** - A condition one is not born with.

**Acquired Immune Deficiency Syndrome** - A disease caused by a virus which breaks down the body's immune system, making it vulnerable to opportunistic infections and cancer.

**Addiction** - Habitual use of a substance (like tobacco, alcohol, or IV drugs) and inability to stop the craving for such a substance.

**Adenopathy** - A swelling or enlargement of the lymph nodes.

**AIDS** - The initials for the disease "Acquired Immune Deficiency Syndrome." A disease caused by a virus which breaks down the body's immune system, making it vulnerable to opportunistic infections and cancer.

**AIDS virus (HIV) test** - A test used to detect antibodies against the AIDS virus (HIV) in blood samples. This test does not detect AIDS but rather the presence of the antibodies against the virus that can cause AIDS.

**Antibodies** - Substances in the blood produced by the body's immune system to fight against invading organisms.

**Antigen** - A substance that stimulates the production of antibodies.

**Asymptomatic** - No apparent symptoms of illness even though the individual tests positive for HIV.

**Bisexual** - A person who has sexual orientation for both males and females.

**Blood Transfer or Transfusion** - the act of transmitting blood from one individual to another. In pregnancy it would occur between the mother and unborn baby through maternal/fetal circulation.

**Carrier** - A person who harbors a specific infectious agent, in the absence of clinical disease, and serves as a potential source of infection.

**Casual Contact** - The usual daily interaction between people at work, in school or in social situations.

**Centers for Disease Control (CDC)** - A federal health agency that is a branch of the United States Department of

Health and Human Services. The CDC provides national health and safety guidelines and statistical data on AIDS and other diseases.

**Communicable/Contagious** - Capable of being transmitted directly or indirectly from one person to another. It is caused by bacteria, viruses and other organisms or their toxic by-products.

**Condoms (rubbers, safes, prophylactics)** - Balloon-like latex covers put on the penis before sexual contact, to prevent pregnancy and the spread of Sexually Transmitted Diseases (STD).

**Contagious** - A disease that is contagious can be spread indirectly as well as directly. A contagious disease can be passed from one person to another through the air as well as by touch. (See also *Infectious.*)

**Contaminated** - A material or substance that has organisms capable of infecting people.

**Continuum of Disease** - Stages of severity of disease effect.

**Course of Disease** - The progression of a disease from onset of symptoms to resolution.

**Exposed** - A virus has entered the body and caused its immune system to produce antibodies.

**Exposure** - Having contact with a disease-causing organism.

**Gay** - See homosexual.

**Hemophilia** - An inherited delayed clotting disorder of the blood that requires transfusions of blood or blood products to prevent abnormal bleeding.

**Heterosexual (Straight)** - A person who is sexually oriented toward people of the opposite sex.

**HIV** - The name for the AIDS virus "Human Immunodeficiency Virus".

**Homosexual (Gay or Lesbian)** - A person who is sexually oriented toward people of the same sex.

**Immune** - Protected against the possibility of acquiring a given infectious disease.

**Immune System** - The system in the body that fights off infection.

**Immunity** - The body's natural or induced resistance to a disease.

**Incubation** - The time interval between infection with a disease-causing organism and the appearance of the first symptoms of the disease.

**Infection** - A disease caused by microorganisms such as viruses, bacteria, or fungi. A state when disease-causing organisms are multiplying within the body and causing the body to respond in a number of ways (i.e., producing antibodies).

**Infectious** - Communicable by infection from one person to another or from one part of the body to another. In reference to AIDS, an AIDS infected person can transmit the AIDS virus to another person, *only* through an exchange of HIV infected body fluids such as semen or blood. (See also *Contagious.*)

**Intercourse** - Physical sexual contact between individuals that involves the genitalia of at least one person.

**Intravenous (IV)** - Inside the veins.

**Kaposi's Sarcoma (KS)** - A rare form of cancer characterized by persistent purplish sores on the skin.

**Lesbian** - See homosexual.

**Lymphocyte** - A type of white blood cell that is produced in the bone marrow. Some of these cells are called T-cells, others are called B-cells. The B-cells manufacture antibodies, and the T-cells regulate antibody production. In healthy people, about 60 percent of circulating lymphocytes are helper T-cells. In a person with AIDS, about two percent of the lymphocytes are helper T-cells. With fewer helper T-cells, the body is unable to recognize and attack invading organisms.

**Malignancy** - A cancerous growth that destroys or crowds out normal tissues.

**Method of Entry** - Manner in which organisms enter the host's body.

**Method of Escape** - Manner in which an infectious agent exits the host's body.

**Mode of Transmission** - Manner in which an infectious agent is transmitted from one person to another.

**Monogamous** - Having sexual intercourse with only one individual over a very long period of time. Marriage is usually considered a monogamous relationship.

**Mucous Membrane** - Fine layer of tissue that lines body cavities and orifices such as the mouth and rectum. This membrane secretes *mucus,* viscous material which lubricates and protects the membrane itself.

**Noncommunicable Disease** - A disease that is not transmitted from person to person.

**Neurologic** - Pertaining to the central nervous system.

**Opportunistic Infection** - Infection caused by organisms which rarely cause disease in persons with a normal, healthy immune system.

**Organism** - Any living thing, such as a virus, a bacterium, etc.

**Pandemic** - An epidemic covering an extremely large area. AIDS is a pandemic disease in the process of affecting the entire planet.

**Parasite** - An organism that grows, feeds and is sheltered on or in a different organism while contributing nothing to the survival of its host.

**Persistent** - Does not go away. Difficult to get rid of.

**Pneumocystis Carinii Pneumonia** - A rare form of pneumonia, caused by a parasite in the lungs. The most common life-threatening opportunistic infection diagnosed in AIDS patients.

**Resistance** - The ability to fight off infection.

**Risk Factor (for HIV)** - Activity that makes a person more susceptible or more likely to be exposed to the AIDS virus (HIV).

**Secretion** - A substance, not a waste product, generated from blood or body cells.

**Semen** - A viscous whitish secretion of the male reproductive organs. The transporting medium for sperm. The fluid that is expelled from the penis during sexual activity.

**Sexual Intercourse** - Physical contact between individuals that involves the stimulation of the genitalia. Specifically: vaginal intercourse (penis/vagina), oral intercourse (mouth/penis or mouth/vagina), and anal intercourse (penis/rectum).

**STD** - Sexually Transmitted Disease.

**Susceptible** - Not able to fight off infection.

**Symptoms** - A phenomenon that arises from and accompanies a particular disease or disorder and serves as an indication of the disease. What you tell your doctor that you are suffering from.

**Syndrome** - A group of symptoms, any or all of which may be present when a person has a disease.

**T-Cells** - Type of white blood cell which fights infection.

**Thrush** - An infectious disease characterized by weeping white patches on painful, inflamed mucous membrane, common in mouth and throat.

**Transfusion** - To transfer blood or blood products into a blood vessel.

**Transmission** - Spread of microorganisms from one person to another or from animals to people.

**Vaccine** - Weakened or killed disease organisms which stimulate the immune system to produce antibodies.

**Virus** - The smallest causative organism of disease, requiring another living cell to reproduce.

# Resources
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## SOUTH DAKOTA RESOURCES

South Dakota Department of Health, AIDS Prevention Project, 523 East Capitol, Pierre, SD 57501, 605-773-3364.

The Regional Field Offices of the SD Department of Health are staffed by Communicable Disease Specialists and have available a variety of educational materials including pamphlets, booklets and videotapes as well as current statistics. The pamphlets and booklets are available free from any of the Regional Field Offices and the videotapes are available on a free loan basis from those offices. The Regional field Offices are as follows:

1. Brown County Health Department 25 Market St., Aberdeen, SD 57401, 605-622-2373.
2. Pierre Area Communicable Disease Control, 523 East Capitol, Pierre, SD, 57501, 605-773-3364.
3. Rapid City Area Communicable Disease Control, 725 North Lacrosse, Rapid City, SD 57701, 605-394-2370.
4. Sioux Falls Area Communicable Disease Control, 817 West Russell, Sioux Falls, SD 57104-1360, 605-339-6666.

A list of printed and audiovisual material on AIDS entitled *AIDS Education Resources* is available from:

South Dakota Division of Education, AIDS Education, 700 Governors Drive, Pierre, SD., 57501-2291, 605-773-3261, Attn: Marianne Carr, Director AIDS Education.

Some of the printed and audiovisual materials on the list are also available for loan from the Division of Education.

## COMPUTER SOFTWARE
## (A PARTIAL LISTING)

Included below is a partial listing of software available on the subject of AIDS. For more information contact the listed vendor.

| Software | Producer | Computer |
|---|---|---|
| AIDS | Public Domain | Apple |
| Understanding AIDS | Substance Abuse Ed. | Apple/IBM |
| AIDS - The New Epidemic | Marshware | Apple |
| AIDS - The Investigation | Marshware | Apple |
| Health: AIDS | ABC News InterActive (Optical Data) | Macintosh Videodisc |
| AIDS Information Delivery System | Health Edu Tech | Apple |
| STD: Sexually Transmitted Disease | SAE | Apple/IBM/ Macintosh |
| Understanding AIDS | Queue | Apple/IBM/ Commodore |
| AIDS: Informational Defense System | Marshware | Apple |

# FILM AND VIDEO RESOURCES

**Please Note:** Some films and videos may be quite graphic and make explicit sexual references. Please preview to assure appropriateness for your class.

**AIDS: Changing the Rules**—Schmid Laboratories, Inc., Health Education Division

This film discusses issues related to AIDS, abstinence, protection and the spread of the disease.

**Understanding AIDS: What Teens Need to Know**—Sunburst Communications

This video documentary uses a teenage panel discussion to dispense information on AIDS, abstinence, condoms, alternative expressions of affection and misconceptions about AIDS.

**A Letter From Brian**—American Red Cross

This video portrays a teenage couple's reaction to a letter from the girl's former boyfriend who has AIDS. Former Surgeon General Koop discusses a common concern among teenagers—kissing. Study guide also available.

**Sex, Drugs and AIDS**—O.D.N. Productions, Inc.

This video explains the transmission of HIV through drug injections and sexual intercourse. It also clarifies the differences between casual and sexual contact. A discussion guide is available with this video. Discussion guide accompanies the tape.

**AIDS: Everything You and Your Family Need to Know, But Were Afraid to Ask**— HBO Studio Productions

Former Surgeon General Koop responds to a wide variety of questions, providing frank, accurate information about the cause, transmission and prevention of the disease AIDS. Although the reliability of condoms is discussed, abstinence is stressed.

**The AIDS Epidemic: Is Anyone Safe**—Guidance Associates Inc.

This video uses interviews scenarios and medical experts to give high school students information on AIDS transmission, prevention and risky behaviors, stressing the dangers associated with drug use.

**For a more complete list see:** *Resources.* Many films and videos are available for loan from the SD Division of Education.